NOV - 2 1901

LIBRARY SERIES No. 4.

IRVING K. POND, DES. LORADO TAFT, SCULPT.

THE INLAND ARCHITECT AND NEWS RECORD

Entered at the Postoffice at Chicago as second-class matter.

CONTENTS.

EDITORIAL: PAGE
Death of Napoleon E. H. C. Le Brun, of New York—The St. Louis World's Fair of 1903—A Protest Against Foreign Competition..... 17

THE BATTLE OF NATIONS MONUMENT AT LEIPSIC..... 18
By Frederick Baumann, Architect.

LIBRARY CONSTRUCTION—Concluded..... 21
By F. J. Burgoyne.

THE LOUISIANA PURCHASE EXPOSITION OF 1903 AT ST. LOUIS.. 23

CORRESPONDENCE 24

PAINTS IN ARCHITECTURE 24

THE CHICAGO SCHOOL OF ARCHITECTURE 24

ASSOCIATION NOTES:
Buffalo Chapter A. I. A.—Pittsburg Chapter A. I. A.—Illinois Chapter A. I. A.—Brooklyn Chapter A. I. A 24

OUR ILLUSTRATIONS 24

INDEX TO ADVERTISEMENTS XI

"SPECIFICATION REMINDERS" XV

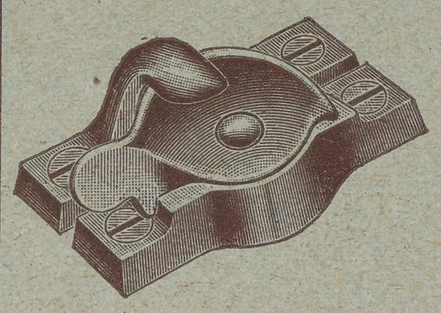
NORTH-WESTERN TERRA-COTTA CO.

WORKS AND OFFICE:
Clybourn and Wrightwood Avenues.
BRANCH OFFICE: 1118 Rookery Building,
CHICAGO.

J. W. TAYLOR,
Bedford Building, 215 Dearborn St., Chicago,
ARCHITECTURAL PHOTOGRAPHS,
BUILDINGS, INTERIORS, DETAILS, ETC.

Promise to purchase two dozen from the lot at $4.00 per dozen, unmounted, and I will send 200 from which to make the selection.

FITCH SASH LOCKS



ADJUST AND PROTECT THE SASHES, PREVENT RATTLE AND SECURELY
LOCK THE WINDOW.
SOLD BY HARDWARE DEALERS EVERYWHERE. CATALOGUE AND WORKING MODEL FREE.
THE W. & E. T. FITCH CO., NEW HAVEN, CONN.

THE WINSLOW BROS. COMPANY
CHICAGO
ORNAMENTAL IRON AND BRONZE AND MONUMENTAL BRONZE STATUARY

THE WINSLOW ELEVATOR & MACHINE CO.
HIGH-GRADE ELECTRIC AND HYDRAULIC ELEVATORS

No unsightly Cornices with "BURLINGTON" Venetian Blinds

Keep out the Sun; Control the Light; Admit Air Perfectly
Our Inside Sliding Blinds
Superior in every way to Folding Blinds
Write for Catalogue G
BURLINGTON VENETIAN BLIND CO.
BURLINGTON, VT.

Architectural Draftsman.
A first-class architectural draftsman, with experience, can secure a good position. Write
BAERRESEN BROS., *Architects*,
Mack Block, DENVER, COLO.

LOUIS J. MILLET
(Successor to HEALY & MILLET)
Interior Decorator
151 MICHIGAN AVE., CHICAGO
Leaded Glass. Glass Mosaic. Frescoing

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

Dexter Brothers' English Shingle Stains

ARE NATURE'S NEAREST REPRODUCERS.

CARRIED IN STOCK
BY THE

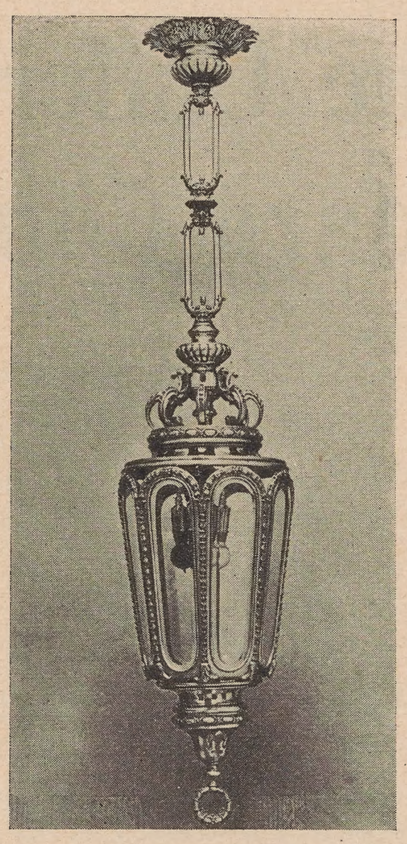
H. M. HOOKER CO.
57 W. RANDOLPH STREET
CHICAGO

W. S. HUESTON
45 CLIFF STREET
NEW YORK

KEEN & MEAD, ARCHITECTS, PHILADELPHIA.

SEND FOR SAMPLE BOARDS
AND COLOR PLATES TO

DEXTER BROTHERS, 103-105-107 Broad Street
. . . BOSTON . . .



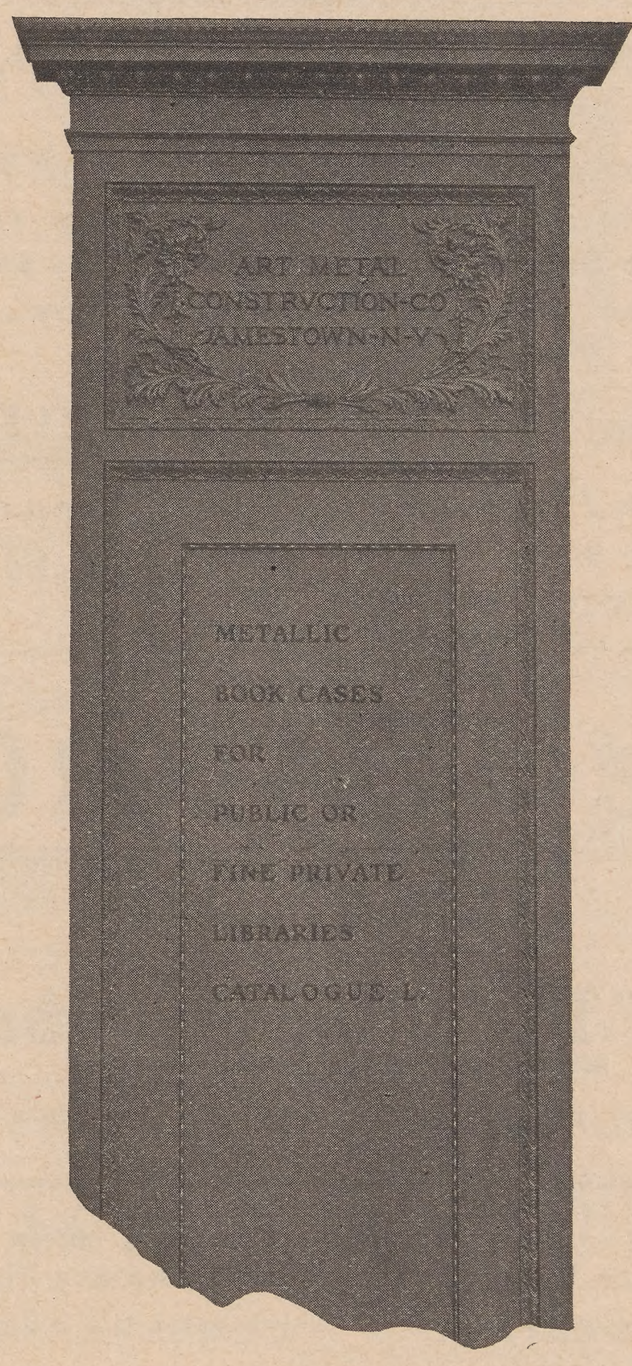
We manufacture ARTISTIC GAS and ELECTRIC FIXTURES from original designs, and are always pleased to furnish sketches or estimates from Architects' designs.

Reproductions of all the old Models of the French Palaces in Louis XIV, XV, XVI and Empire styles.

OXLEY & ENOS MFG. CO.,

Showrooms: 371 Fifth Avenue, Corner 35th Street,
NEW YORK.

ESTABLISHED 1865. INCORPORATED 1895.



Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

Westinghouse, Church, Kerr & Co.

ENGINEERS.

NEW YORK. BOSTON. PHILADELPHIA. CHICAGO. PITTSBURG. DETROIT.

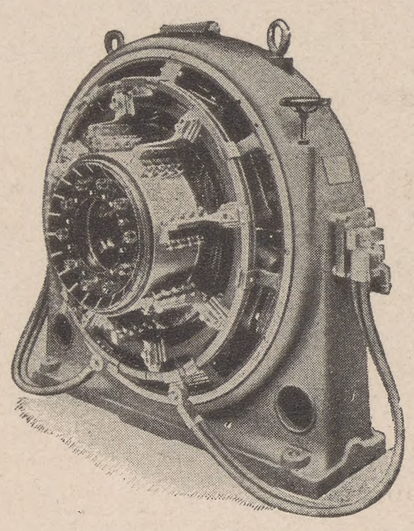
ALSO SELL THE PRODUCT OF

THE WESTINGHOUSE MACHINE CO.,

PITTSBURG.—Manufacturers—CHICAGO.

of

Westinghouse Junior, Standard, Compound Steam Engines, Gas Engines, Roney Mechanical Stokers, Steam Turbines, etc., etc.



Westinghouse

GENERATORS

FOR ISOLATED LIGHTING AND POWER INSTALLATIONS.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.

PITTSBURG, PA.

ALL PRINCIPAL CITIES IN U. S. AND CANADA

41C2

N. & G. TAYLOR CO.

PHILADELPHIA

are the only manufacturers of Tinplates who manufacture their own brand throughout all its processes from the bar to the finished tin. The price of

The "TAYLOR OLD STYLE"

brand, therefore, is more reasonable than the price of any of its competitors.

N. & G. TAYLOR CO.

Sole Manufacturers OF

The "Taylor Old Style" brand

FOR SALE BY ALL DEALERS.

Tinplate Works, PHILADELPHIA.

Rolling Mills and Blackplate Plant, CUMBERLAND, MD.

The Uniform Standard Contract

SAVES TIME IN WRITING CONTRACTS.
SAVES TIME IN READING CONTRACTS.
SAVES TIME LOST IN LITIGATION.
SAVES MONEY FOR OWNER, ARCHITECT AND CONTRACTOR.

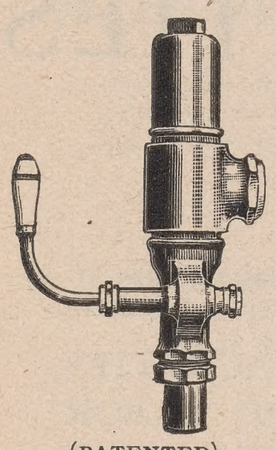
REVISED AND IMPROVED.

Adopted and Recommended for General Use by the American Institute of Architects and the National Association of Builders.

$1.10 per 100, $4.50 per 500, $8.00 per 1,000, free by mail or express.

INLAND PUBLISHING CO.
610 Manhattan Building,
CHICAGO.

THE FLUSHOMETER



(PATENTED)

THE KENNEY SYSTEM.

AN INGENIOUS DEVICE FOR FLUSHING WATER CLOSETS, EITHER FROM TANK SERVICE OR STREET PRESSURE.

Takes the place of noisy and dirty overhead flush tank.
No Cup Leathers or Springs.

Can be adapted to conform to almost every conceivable requirement, and is the only system that will operate successfully at all times one or any number of closets under the varying conditions of water pressure.

Application of Flushometer.

FLUSHOMETER
TRADE MARK.

Send for Catalogue and List of Recent Installations.

THE KENNEY COMPANY, 72-74 Trinity Place, NEW YORK.

The Ideal Route

TO

CALIFORNIA
MEXICO and
THE ORIENT

Southern Pacific Co.

SUNSET ROUTE...

VIA NEW ORLEANS

Through Pullman Palace Buffet and ordinary Sleeping Cars.

THE FAMOUS AND PALATIAL

Sunset Limited

LEAVES NEW ORLEANS EVERY MONDAY, THURSDAY and SATURDAY FOR LOS ANGELES AND SAN FRANCISCO.

Through Personally Conducted TOURIST EXCURSIONS from all principal points to

LOS ANGELES AND SAN FRANCISCO.....

(NO CHANGE OF CARS).

Free Reclining Chair Cars between El Paso and San Francisco.

THROUGH PULLMAN (DAILY) SERVICE

New Orleans to Mexico City

For detailed information regarding the service, rates, etc., address

W. G. NEIMYER, General Western Agent,
238 Clark Street, CHICAGO, ILL.

EDWIN HAWLEY, Ass't Gen'l Traffic Mgr.,
349 Broadway, NEW YORK.

Fire Insurance

Is of less importance than "weather insurance." Few buildings are burned, but all are exposed to the assaults of the elements. Good paint is a sound weather insurance policy.

Zinc White

Is the essential ingredient of good paint. A pure oil combination paint in which zinc white predominates is "weather insurance" in its best form.

FREE—Our Practical Pamphlets:
"The Paint Question."
"Paints in Architecture."

The New Jersey Zinc Co.

11 Broadway, NEW YORK

PITKIN'S PREMIUM PAINT

FOR PRESERVING AND BEAUTIFYING.

We will be pleased to send a handsome color-card, appropriately framed in Flemish oak, to architects on application.

Geo. W. Pitkin Co.

Station "C," CHICAGO.

Electric Signals

FOR PASSENGER ELEVATORS

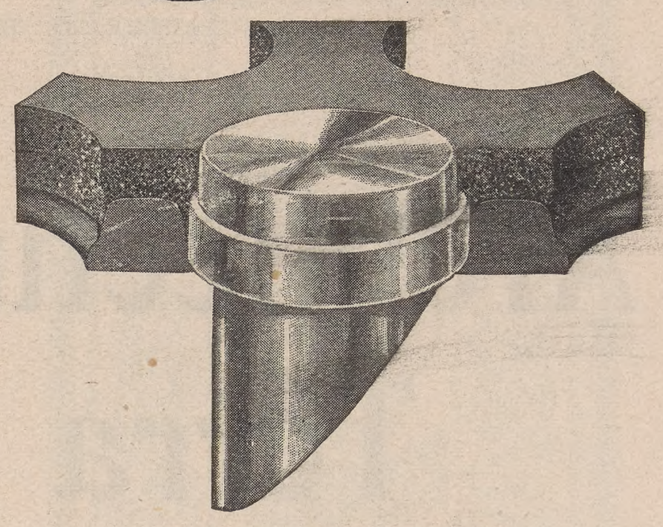
Elevator Supply and Repair Co.

136 Liberty Street, NEW YORK — 34 W. Monroe Street, Tel. Main 1741 CHICAGO

WANTED

A case of bad health that R·I·P·A·N·S will not benefit. R·I·P·A·N·S, 10 for 5 cents, may be had of all druggists who are willing to sell a low-priced medicine at a moderate profit.
They banish pain and prolong life.
One gives relief. Accept no substitute.
Note the word R·I·P·A·N·S on the packet.
Send 5 cents to Ripans Chemical Co., No. 10 Spruce St. New York, for 10 samples and 1,000 testimonials.

Sidewalk Lights



CONCRETE REFRACTING LENS.

SEND FOR CATALOGUE

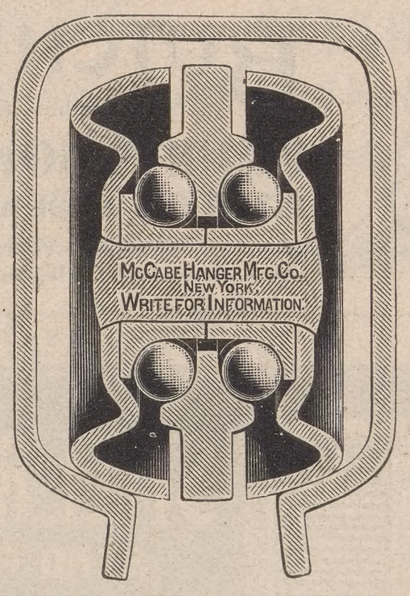
Brown Bros. Mfg. Co.

Established in 1860

Main Office and Factory:
Twenty-second Street and Campbell Avenue
Telephone, Canal 115

Branch Office—N. W. Cor. Jackson Boul. and Clinton St.
Telephone, Main 4085

Chicago



CHICAGO OFFICE:
187 DEARBORN STREET,
MR. R. H. GARDNER, REPRESENTATIVE.

THE J. W. REEDY ELEVATOR CO.

Passenger and Freight

ELEVATORS.

83 to 91 Illinois Street, CHICAGO. — 31-33 Tenth Avenue, NEW YORK CITY.

FOR INFORMATION ABOUT

U. S. MAIL CHUTES

WHICH ARE

A necessity in office buildings and hotels, write to the sole makers,

THE CUTLER M'F'G CO., Rochester, N. Y.

PATENTED. AUTHORIZED.

THE WINKLE TERRA COTTA CO.

MANUFACTURERS OF

Architectural Terra Cotta

IN ALL COLORS.

OFFICE:

Rooms 502 and 503, Century Building,
ST. LOUIS, MO.

Works: CHELTENHAM, ST. LOUIS.

INDUSTRIAL OPPORTUNITIES

Containing Detailed Information Regarding

RAW MATERIALS, SHIPPING FACILITIES, RATE OF TAXATION, COST OF LABOR, SOURCES AND PRICE OF POWER, VALUE OF LANDS SUITABLE FOR MANUFACTURING SITES AND SPECIAL INDUCEMENTS EXISTING ALONG THE LINES OF THE

Lackawanna Railroad

B. D. CALDWELL, Traffic Manager. WILLIAM B. HUNTER, Industrial Agent.

General Offices: 26 Exchange Place, New York City.

BUTCHER'S BOSTON POLISH

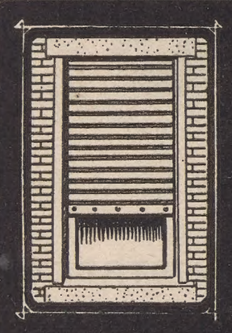
is the best finish made for

FLOORS, BOWLING ALLEYS
INTERIOR WOODWORK and FURNITURE

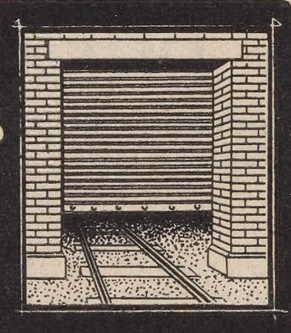
Circulars sent on application.

MANUFACTURED BY THE
BUTCHER POLISH CO.
356 Atlantic Ave., Boston, Mass.

FOR SALE BY DEALERS IN PAINTERS' SUPPLIES.



KINNEAR
STEEL ROLLING { DOORS / SHUTTERS
SEND FOR CATALOGUE "K"
THE KINNEAR MFG. CO.,
COLUMBUS, OHIO. U.S.A.
BOSTON 85 WATER ST. NEW YORK 45 VESEY ST. CHICAGO 112 CLARK ST. PHILADELPHIA 1011 CHESTNUT ST.



FOR SHOW WINDOWS OF GOOD STORES

FRINK'S SPECIAL PATENT WINDOW REFLECTOR is the only fixture that perfectly meets every requirement, both artistic and practical, of lighting the modern show window. Any architect who will take the trouble to investigate, and inspect show windows we can refer him to, will admit this.

Send for descriptive circular and list of 200 representative stores using it.

I. P. FRINK, REFLECTORS FOR LIGHTING, 551 PEARL ST., NEW YORK

CRANE FITTINGS
ESTABLISHED 1855

CONVENIENT TRAINS

Leave St. Paul and Minneapolis daily

. . VIA . .

Wisconsin Central R'y

. . FOR . .

MANITOWOC,
MILWAUKEE,
CHICAGO,

where direct connections are made for the East and South.

Nearest ticket agent can give you complete information.

JAS. C. POND, Gen. Pass. Agent,
MILWAUKEE, WIS.

E. ELDON DEANE,

ARCHITECTURAL COLORIST, AND ILLUSTRATOR,
63 SEYMOUR BUILDING,
Fifth Ave., corner 42d Street,
NEW YORK.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

Your Best Buildings

Reproduced exactly from Photographs by our

HALF-TONE PROCESS

and issued in book or pamphlet form would constitute an attractive Souvenir, and a pleasant introduction to Prospective Clients . . . .

We will make half-tone plates (our best work) at LOWER PRICES than you can get elsewhere—probably 30 to 40 per cent less.

. . . . . Send for prices, stating sizes and number of plates wanted.

INLAND PUBLISHING CO.

610 Manhattan Building, - - - - - CHICAGO.

Artificial Stone for outside Decoration of Buildings

ORNAMENTAL AND PLAIN

Made of best Portland Cement and cheaper than Terra-Cotta or Stone.

For descriptive circular write to

GEO. NIEMANN,

464 W. Erie St., - - CHICAGO, ILL.

UNIFORM STANDARD CONTRACT

Framed and indorsed by the American Institute of Architects and the National Association of Builders.

INLAND PUBLISHING COMPANY,

610 Manhattan Building, - - - Chicago.

TO
HOT SPRINGS ARKANSAS

THROUGH SLEEPING CAR WITHOUT CHANGE

ILLINOIS CENTRAL RAILROAD — CENTRAL MISSISSIPPI VALLEY ROUTE

BY WAY OF MEMPHIS

Tickets and Information of Agents Of Illinois Central and Connecting Lines
A. H. HANSON, G. P. A., CHICAGO.

CRANE VALVES
ESTABLISHED 1855

"WHATEVER IS WORTH DOING AT ALL IS WORTH DOING WELL"

THE HENRY O. SHEPARD COMPANY

212-214 Monroe St. CHICAGO

Telephone 555

Printers, Embossers Blank Book Makers

We do all kinds of Printing and Binding Rush Work a Specialty

. . . Observe Typography of THIS JOURNAL as a fair specimen of our grade of work

Richards & Kelly Mfg. Co.

MANUFACTURERS OF

SIDEWALK LIGHTS, FLOOR AND SKY LIGHTS,

389-391 Twenty-third Street,

Send for Catalogue. CHICAGO, ILL.

Interlocking Rubber Tiling

As laid by us in the Ladies' Room, Broad Street Station, Pennsylvania R. R., Philadelphia.

Noiseless, non-slippery, waterproof, sanitary, durable. A perfect floor for offices, banking-rooms, courthouses, schoolrooms, libraries, hospital wards, cafés, bathrooms, billiard-rooms, vestibules, halls, piazzas, etc. Laid directly on wood, stone, cement, concrete or iron. Call or write.

NEW YORK BELTING & PACKING CO., Ltd.

Chicago.....150 Lake Street
New York.....25 Park Place
Philadelphia.....724 Chestnut Street
Baltimore, Baltimore Rubber Co., 101 Hopkins Place
St. Louis.....411 North 3d Street
San Francisco.....509-511 Market Street
London, Eng., The B. & S. Folding Gate Co., 19 to 21 Tower Street, Upper St. Martin's Lane, W. C.

Folsom New Model Snow Guard

Specified by leading architects to hold the snow on all pitch roofs, entirely obviating al. chance of injury to life or to the property it protects. The only perfect device for this purpose. It is made in various forms for old and new roofs of slate, shingle, tile or metal. Ful. information on application.

THREE HISTORIC BUILDINGS.
Faneuil Hall,
Old South Church,
King's Chapel,
Boston,
Are Fitted with this Snow Guard.

FOLSOM SNOW GUARD CO.
ROSLINDALE (BOSTON), MASS.

Without Using Any Chemicals

SCAIFE FILTERS

WILL FURNISH

CLEAR, PURE WATER.

CAPACITY: 10 TO 10,000 GALLONS PER HOUR.

Simple in Construction
Easy to Operate
Results Guaranteed

CATALOGUE ON APPLICATION.

Wm. B. Scaife & Sons, Pittsburg, Pa.

6 FAST TRAINS
Chicago & North-Western Ry.

The Overland Limited
California in 3 days—every evening

The Colorado Special
One night to Denver—every morning

The Chicago-Portland Special
Oregon and Washington in 3 days—every evening

The North-Western Limited
Electric Lighted—Chicago, St. Paul and Minneapolis—every evening

Duluth and St. Paul Fast Mail
Fast train to the head of the lakes—every night

The Peninsula Express
Fast time to Marquette and Copper Country—every night

THROUGH CAR LINE between Chicago, Milwaukee, Fond du Lac, Oshkosh, Green Bay, Marinette, Menominee, Ishpeming, Ashland, Duluth, St. Paul, Minneapolis, Madison, Winona, La Crosse, Huron, Pierre, Oakes, Clinton, Cedar Rapids, Marshalltown, Des Moines, Sioux City, Omaha, Denver, Cheyenne, Ogden, Salt Lake, Portland, San Francisco and Los Angeles.

Ticket Offices, 212 Clark Street and Wells Street Station, Chicago.

SPECIAL IMPORTATIONS
Of Rare Oriental Rugs

Architects and Decorators who are seeking rugs and carpets of unusual designs, colors and sizes, will be interested in the selection made personally by Mr. Costikyan during his trip in the Orient. Our already large stock has been greatly increased by these importations.

Some of the finest specimens of Oriental work ever brought to this country are now on exhibition at our warerooms, and you are cordially invited to examine the assortment.

Orders for rugs to harmonize with other decorations and furnishings will have prompt attention. Rugs and carpets of any size made to order on our looms abroad.

KENT-COSTIKYAN
MAKERS AND IMPORTERS
FINE PERSIAN CARPETS AND RUGS
WHOLESALE
890 Broadway, Cor. 19th St., NEW YORK
Telephone, 2069 18th St.

CONCRETE
CONSTRUCTION.

CEMENT AND ASPHALT CONTRACTORS
SIMPSON COMPANY
CHAMBER OF COMMERCE BLD'G
REG. TRADE MARK
CHICAGO

ESTABLISHED 1869

Portland Cement
Floors and Pavements.

Rock Asphalt
Floors and Pavements.

TELEPHONE MAIN 883

WANTED.

A general office man by a large contracting and building firm to take oversight of the correspondence and accounts of their Eastern office. Must have a good general knowledge of plans and be familiar with the routine work of a large business; a man with a technical training preferred, but must have had several years' experience in above capacity in an engineer's, contractor's or architect's office.

Apply with references, stating age and experience, to this office.

W. H. S. Lloyd Co.

REPRESENTING
A. SANDERSON & SONS, OF LONDON.

ENGLISH
WALL PAPERS

JAPANESE LEATHERS
GRASS CLOTH

Finest Stock of Foreign Wall Papers in U. S.

26 E. 22d St., New York

Advance News

INDICATING

Chances to Sell

PLANS, FIXTURES,
MATERIALS, FURNITURE,
MACHINERY,

May be secured with promptness, accuracy and thoroughness, and at reasonable rates, from

THE PRESS CLIPPING BUREAU,

ROBERT AND LINN LUCE,

78 Park Place, NEW YORK. 68 Devonshire St., BOSTON
Pike Bldg., CINCINNATI. Cooper Bldg., DENVER.

WANTED—DRAFTSMAN

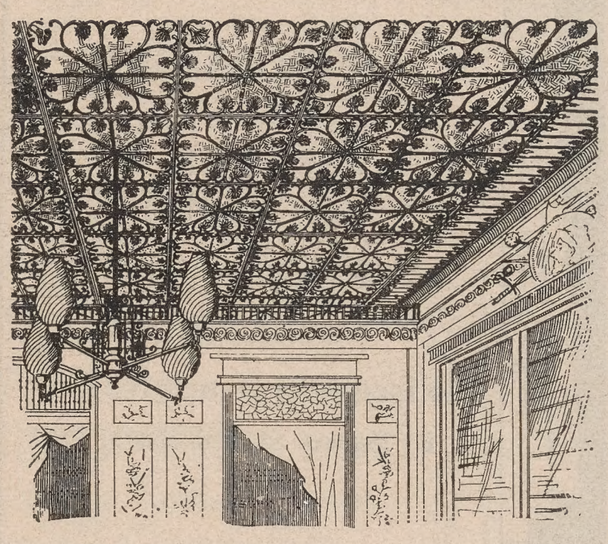
Experienced in **ornamental architectural iron-work.** New York position. Address C. H. F., care of THE INLAND ARCHITECT.

Sheet-Steel Indian Canoes
Non-sinkable and indestructible. 14 feet long, 39 inch beam.

Twenty-Two Dollars, Net. EXTRA FOR FISH FOX AND SECTIONAL BOAT.
W. H. MULLINS, 310 Depot St., SALEM, OHIO.

DICKERHOFF PORTLAND CEMENT.

ON application, E. Thiele, 99 John Street, New York, will mail to you a letter explaining the defect most frequently occurring in Portland Cement, and stating good reasons why for important work the Dyckerhoff brand should be selected, notwithstanding its higher price.



Berger's
METAL CEILINGS

Deepest stamped. Most artistic. Greatest variety of patterns. Only ones in Classified Designs. Ask for details.

THE BERGER MFG. CO.,
CANTON, OHIO.

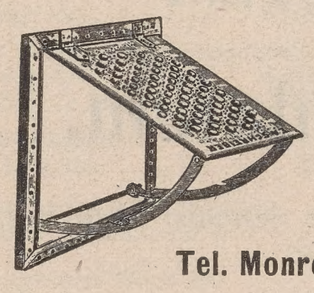
DEXTER PORTLAND CEMENT CO. FINENESS STRENGTH TRADE MARK PORTLAND UNIFORMITY SAMUEL H. FRENCH & CO. SOLE AGENTS PHILA.PA NAZARETH, PA.

Dexter Portland ...Cement...

Highest Standard Attainable for Pavement and Concrete Work.

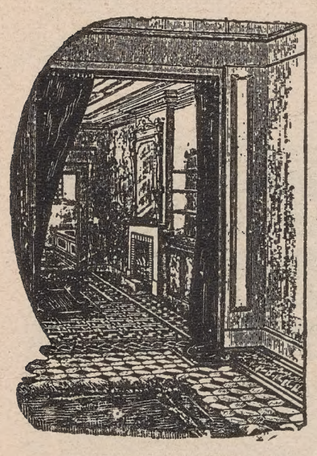
SAMUEL H. FRENCH & CO., Sole Agents,
PHILADELPHIA.

Established 1844.



AMERICAN SIDEWALK LIGHT CO.

MANUFACTURERS OF ALL KINDS OF
Concrete and Hyatt Sidewalk, Floor and Skylight Work,
AND ALL KINDS OF IRONWORK.
Coal-Hole Covers of every description always on hand.
Tel. Monroe 643. **156-158 West Ohio St., CHICAGO.**



Hardwood Floors

Wood Carpets, Parquet Floors, Rug Borders.

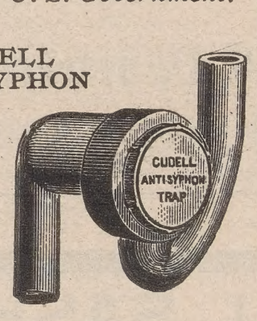
Send for book of designs.

E. B. MOORE & CO.
37 Randolph Street,
CHICAGO, ILL.

Put into the White House by the U. S. Government.

SEALS WITH OR WITHOUT WATER

CUDELL ANTI-SYPHON



F. E. CUDELL'S
Patent Sewer-Gas and Backwater Trap
For Wash-Bowls, Sinks, Bath and Wash Tubs,
CLEVELAND, OHIO.

W. W. ABBOTT,

MANUFACTURER OF
PICTURE FRAMES
MATS AND PASSEPARTOUTS
FRAMES MADE TO ORDER. ARCHITECTURAL DRAWINGS REMOUNTED.
Telephone Harrison 3455 **255 Wabash Ave., CHICAGO**

Hydraulic Press Brick Co.

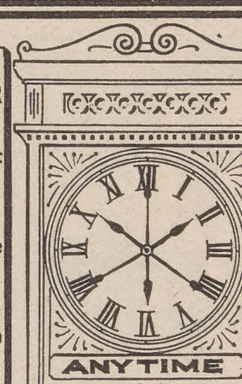
ST. LOUIS, MO.

TOTAL ANNUAL CAPACITY, 300,000,000 BRICKS.

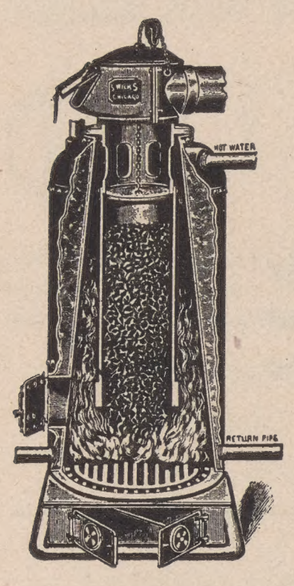
CHICAGO HYDRAULIC PRESS BRICK CO.,	Chicago, Ill.
CLEVELAND HYDRAULIC PRESS BRICK CO.,	Cleveland, Ohio.
EASTERN HYDRAULIC PRESS BRICK CO.,	Philadelphia, Pa.
FINDLAY HYDRAULIC PRESS BRICK CO.,	Findlay and Toledo, Ohio.
ILLINOIS HYDRAULIC PRESS BRICK CO.,	St. Louis, Mo.
KANSAS CITY HYDRAULIC PRESS BRICK CO.,	Kansas City, Mo.
MENOMONIE HYDRAULIC PRESS BRICK CO.,	Minneapolis, Minn.
NEW YORK HYDRAULIC PRESS BRICK CO.,	Rochester, N. Y.
OMAHA HYDRAULIC PRESS BRICK CO.,	Omaha, Neb.
WASHINGTON HYDRAULIC PRESS BRICK CO.,	Washington, D. C.

MONON TRAINS FOR
La Fayette
W. Baden Spr.
Fr. Lick Spr
Louisville
Mammoth Cave
Chattanooga
New Orleans
All Southern Cities.

MONON TRAINS FOR
Indianapolis
Dayton
Cincinnati
Asheville
Atlanta
Jacksonville
St. Augustine
Tampa
Havana.



You travel between
CHICAGO
LOUISVILLE
INDIANAPOLIS
AND
CINCINNATI
GO VIA
MONON ROUTE
AND C.H.&D Rwy.
LUXURIOUS PARLOR AND DINING CARS BY DAY.
PALACE SLEEPING AND COMPARTMENT CARS BY NIGHT.
6 TRAINS DAILY BETWEEN CHICAGO AND THE OHIO RIVER
W. H. McDOEL, PRES. & GEN'L MGR. FRANK J. REED, GEN'L PASS. AGT. CHAS. H. ROCKWELL, TRAFF. MGR.
CHICAGO.



N. S. BOUTON, President. E. H. SEDGWICK, Treas. and Gen'l Mgr.

S. WILKS MFG. CO.

MANUFACTURERS OF

Wilks Hot Water Heaters

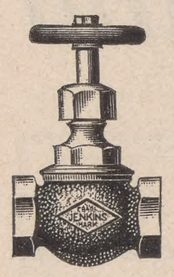
Steam Generators, Steel Tanks, Etc.

For Heating and Supplying with Hot Water Hotels, Dwellings, Greenhouses, Laundries, Churches and Baptisteries, Bath Houses, Carriage Houses, Etc.

ECONOMICAL ✱ SAFE ✱ DURABLE

For all purposes for which Hot Water and Steam are required.

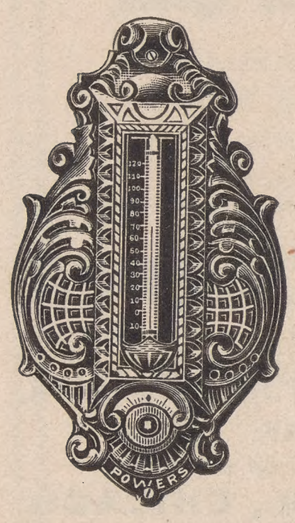
53-55 S. Clinton Street, CHICAGO, ILL.



Jenkins Bros.' Valves

are manufactured of the best steam metal, and are fully guaranteed. Why experiment with cheap valves? If you want the ***BEST,*** ask your dealer for valves manufactured by Jenkins Brothers. Remember all genuine are stamped with Trade-Mark like cut.

JENKINS BROTHERS, New York, Philadelphia, Chicago, Boston.



Avoid Extremes of Heat and Cold

BY USING

THE POWERS SYSTEM

OF

Temperature Regulation.

Applicable to all kinds of heating apparatus in Schools, Churches, Residences, Office Buildings, etc.

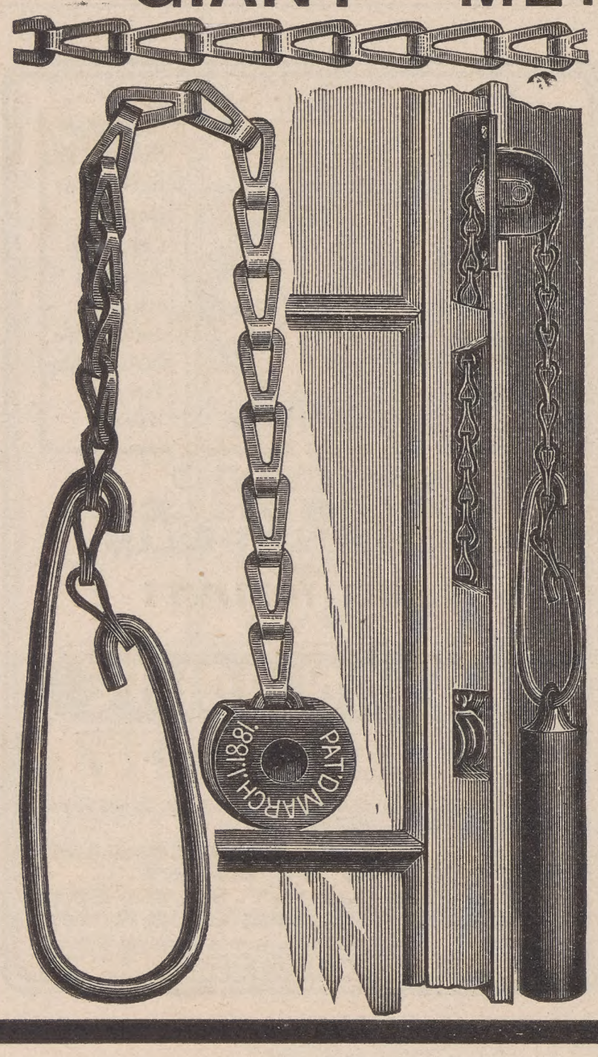
Successfully applied to the control of heat in RAILWAY CARS.

SEND FOR CATALOGUES.

The Powers Regulator Co., 40 Dearborn Street, Chicago.

111 Fifth Avenue, New York. 224 Franklin Street, Boston.

"GIANT" METAL SASH CHAIN



Has not been equaled in quality in 20 years. Durability guaranteed. The bronze costs 40 per cent more than any other Sash Chain metal.

Full line of Sash and Cable Chains, Sash Pulleys and Fixtures.

MANUFACTURED BY

THE SMITH & EGGE MFG. CO.

BRIDGEPORT, CONN.

WRITE FOR OUR LATEST CATALOGUE.

Insist Upon Having "Wisconsin."

No reason to ask for any other brand Graphite Paint.

"WISCONSIN"

Which has a larger covering surface than the other kinds.

Write to-day for sample and prices.

Wisconsin Graphite Co.

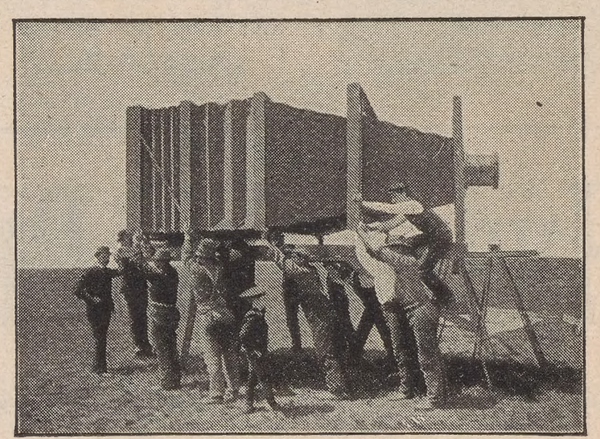
411 Market St., Pittsburg, Pa.

AGENCY FOR MATERIAL WANTED.

A gentleman with a very extensive acquaintance among architects and builders would be willing to represent an Eastern firm in some building material or anything in the building line. Address J. H.,

Care of Inland Architect.

LARGEST CAMERA IN THE WORLD



WAS CONSTRUCTED ESPECIALLY BY ORDER OF THE

CHICAGO & ALTON

RAILWAY, TO PHOTOGRAPH THE ALTON LIMITED.

SEND A 2c. STAMP TO GEO. J. CHARLTON, G. P. A., C. & A. RAILWAY, CHICAGO, ILL., AND RECEIVE AN ILLUSTRATED PAMPHLET WITH FULL ACCOUNT OF THE FIRST EXPOSURE MADE WITH THE EXTRAORDINARY MACHINE.

Please mention **THE INLAND ARCHITECT** when corresponding with Advertisers.

INDEX TO ADVERTISEMENTS.

Architectural Drawing. Page
Deane, E. Eldon VI

Architectural Iron Works.
The Winslow Bros. Co..... II
American Sidewalk Light Co. IX
Scaife, Wm. B., & Sons..... VIII

Architectural Photographers.
Taylor, J. W..... II

Architectural Views.
Taylor, J. W..... II

Blinds.
Burlington Venetian Blind Co..... II

Boats.
W. H. Mullins XIV

Boiler Covering.
The Keasbey & Mattison Co. XII

Bricks (Pressed).
Chicago Hydraulic Press Brick Co IX
Findlay Hydraulic Press Brick Co IX
Illinois Hydraulic Press Brick Co IX
Kansas City Hydraulic Press Brick Co IX
Menominee Hydraulic Press Brick Co IX
Omaha Hydraulic Press Brick Co IX
St. Louis Hydraulic Press Brick Co IX

Brick (Enameled).
Hydraulic Press Brick Co ... IX

Brick (Fire).
Vrooman, H. S..... IX

Brick (Ornamental).
Chicago Hydraulic Press Brick Co IX
Findlay Hydraulic Press Brick Co IX
Hydraulic Press Brick Co ... IX
Illinois Hydraulic Press Brick Co IX
Kansas City Hydraulic Press Brick Co IX
Menominee Hydraulic Press Brick Co IX
Omaha Hydraulic Press Brick Co IX

Bricks (Red Oxide for Brick Mfrs.).
Wisconsin Graphite Co..... X

Builders' Hardware.
Orr & Lockett..... XVI
The Yale & Towne Mfg. Co. XVI

Builders' Sundries.
McCabe Hanger Mfg. Co.... V
The Yale & Towne Mfg. Co. XVI

Building Papers.
Cabot, Samuel XII

Cements.
French, S. H., & Co IX
Meacham & Wright..... IX
Thiele, E IX

Clothes Dryers.
Hill Dryer Co. XIII

Concrete Construction.
Simpson Co VIII

Cordage.
Samson Cordage Works XVI

Creosote Stains.
Cabot, Samuel XII

Decorators' Supplies. Page
Grand Rapids Carved Moulding Co..... XIII

Drawing Material and Implements.
Abbott, A. H., & Co..... XII

Electric Plants.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Elevators.
The J. W. Reedy Elevator Co V

Elevator Supplies.
Elevator Supply & Repair Co. V

Engineers.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Filters.
Scaife, Wm. B., & Sons.. . VIII

Fireproof Doors.
Kinnear Mfg. Co. VI

Fireproof Shutters.
Kinnear Mfg. Co..... VI

Fireproofing.
The Roebling Construction Co..... XII

Floor Polish.
Butcher Polish Co VI

Gas and Electric Fixtures.
Oxley & Enos Mfg. Co..... III

Gas Engines.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Graphite.
Wisconsin Graphite Co..... X

Grease-Graphite.
Wisconsin Graphite Co..... X

Hardware.
The Yale & Towne Mfg. Co. XVI

Heating.
Buffalo Forge Co..... XIII

Heating and Ventilating Apparatus.
Buffalo Forge Co..... XIII
Pierce, Butler & Pierce..... XVI

Hot-Water Heaters.
Wilks, S., Mfg. Co..... X

Ice and Refrigerating Machinery.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Locks.
The Yale & Towne Mfg. Co. XVI

Lubricant (Graphite Lubricant).
Wisconsin Graphite Co..... X

Mail Chutes.
Cutler Manufacturing Co... V

Mechanical Stokers.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Metal Ceilings.
Berger Mfg. Co IX

Metallic Fixtures and Furniture. Page
Art Metal Construction Co . III

Mortars (Red Oxide for Bldg. Mortar)
Wisconsin Graphite Co..... X

Mortar Colors.
French, S. H., & Co..... IX

Moldings, Mirrors, Frames.
Grand Rapids Carved Moulding Co..... XIII
W. W. Abbott..... IX

Oxide of Iron Paints (Dry Paste, ready mixed).
Wisconsin Graphite Co..... X

Paints (Graphite Paints. Dry Paste, ready mixed. Oxide of Iron Paints. Dry Paste, ready mixed.)
Wisconsin Graphite Co..... X

Paints, Oils and Varnishes.
Berry Bros III
Joseph Dixon Crucible Co.. XIII
New Jersey Zinc Co V
Pitkin, Geo. W., Co..... V
Smith, Edward, & Co XVI
Waterall, Wm., & Co..... XV

Pencils.
Joseph Dixon Crucible Co .. XIII

Pipe Joints (Pipe Joint Paste).
Wisconsin Graphite Co..... X

Plumbers' Fittings.
Crane Co.....VI, XIV

Portland Cement.
Dyckerhoff IX
Lawrence Cement Co..... XVI

Printers.
The H. O. Shepard Co VII

Railroads.
Big Four Route XV
Chicago & Alton..... X
Chicago & North-Western R'y VIII
Chicago, Milwaukee & St. Paul..... XI
Delaware, Lackawanna & Western VI
Denver & Rio Grande R. R. XV
Grand Trunk Lines XI
Illinois Central VII
Monon and C. H. & D. Route IX
Rio Grande & Western..... VI
Southern Pacific Co..... V
Santa Fe Route ..... III, IV
Wisconsin Central..... VI

Reflectors.
Frink, I. P..... VI

Roofing Tin.
N. & G. Taylor Co IV

Rolling Doors and Shutters (steel).
Kinnear Mfg Co VI

Rugs—Oriental.
Kent-Costikyan..... VIII

Sanitary Appliances.
Cudell, F. E..... IX
The Kenney Co..... V

Sash Cords and Chains.
Smith & Egge Mfg. Co X
Samson Cordage Works.... XVI

Sash Locks.
The W. & E. T. Fitch Co.... II

Sheathing and Deadening Quilt.
Cabot, Samuel XII

Shingle Stain. Page
Berry Bros..... XIII
Cabot, Samuel XII
Dexter Bros..... III

Sidewalk and Vault Lights.
Brown Bros. Mfg. Co V
Richards & Kelly..... VII
American Sidewalk Light Co. IX

Snow Guards.
Folsom Snow Guard Co..... IX

Spring Hinges.
Smith & Egge Mfg. Co..... X

Stained and Decorative Glass.
Louis J. Millet II

Steam Engines.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Steam Fittings.
Crane Co..... XIII

Steam Loops.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Steel Rolling Doors.
Kinnear Mfg. Co VI

Steel Rolling Shutters.
Kinnear Mfg. Co..... VI

Steel Shutters.
American Sidewalk Light Co. IX
Kinnear Mfg. Co VI

Stokers.
Westinghouse, Church, Kerr & Co IV
The Westinghouse Machine Co IV

Tanks—Steel and Iron.
Scaife, Wm. B., & Sons... VIII

Temperature Regulator.
The Powers Regulator Co.... X

Terra Cotta.
Northwestern Terra-Cotta Works II
Winkle Terra Cotta Co VI

Tile (Enameled).
Tiffany Enameled Brick Co. VIII

Tile (Rubber).
New York Belting & Packing Co., Ltd..... VII

Valves (Steam).
Jenkins Bros..... X
Crane Co.....VII, XIV

Ventilation.
Buffalo Forge Co..... XIII

Wall Papers.
W. H. S. Lloyd Co..... VIII

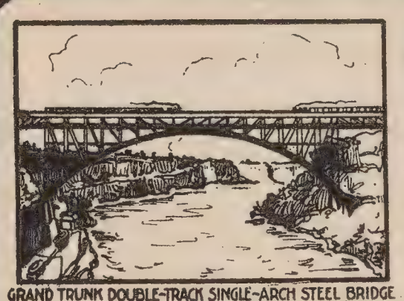
Water Filters.
Scaife, Wm. B., & Sons..... VIII

Water Heaters.
Wilks, S., Mfg. Co IX

Window Blinds.
Geo. Poppert Mfg. Co..... III

Window Lines.
Samson Cordage Works.... XVI

Wood Carpet.
Moore, E. B., & Co..... XI
Acme Parquet Floor Co..... VI


GRAND TRUNK DOUBLE-TRACK SINGLE-ARCH STEEL BRIDGE OVER NIAGARA RIVER

PICTURESQUE PAN AMERICAN ROUTE TO BUFFALO, NEW YORK AND PHILADELPHIA.

GRAND TRUNK RAILWAY SYSTEM

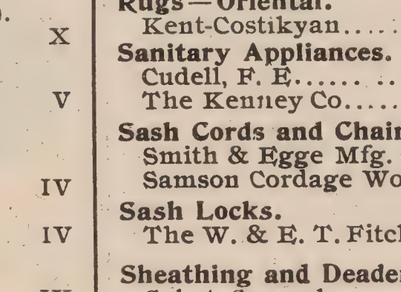
SUPERB SERVICE TO THE PRINCIPAL SEA-PORTS OF THE NORTH ATLANTIC.

THROUGH THE IMPORTANT BUSINESS CENTERS OF CANADA AND NEW ENGLAND.

GRAND TRUNK RAILWAY SYSTEM

FOR INFORMATION, TIME TABLES, ETC., APPLY TO ANY AGENT.

CHICAGO CITY OFFICE, 249 CLARK ST., COR. JACKSON BOULEVARD.


VICTORIA JUBILEE BRIDGE OVER ST. LAWRENCE RIVER, MONTREAL.

THE

St. Paul Road.

(Chicago, Milwaukee & St. Paul R'y)

ELECTRIC-LIGHTED TRAINS

DAILY BETWEEN

Chicago
Des Moines
Sioux City
Omaha

All Coupon Ticket Agents sell tickets via Chicago, Milwaukee & St. Paul R'y.

F. A. MILLER, General Passenger Agent, CHICAGO, ILL.

Summer residence of Chauncy Keep, Esq.,
at Camden, Me.
Frost & Granger, Architects, Chicago.

Cabot's Shingle Stains

The Original and Standard, and only "Creosote" (trade-mark) Stains.

Distinguished by their soft, fresh coloring effects and durability. Furnished in any color desired. Use any color you want in working up your color scheme, and if we have none like it we will make one without extra cost. Samples can always be had on application.

SAMUEL CABOT, Sole Manufacturer,

28 Dearborn Ave., CHICAGO, ILL. **70 Kilby St., BOSTON, MASS.**

The Roebling System of Fire-Proof Construction.

HIGHEST EFFICIENCY IN THE FIRE AND WATER TESTS OF THE NEW YORK BUILDING DEPARTMENT, AND NOW THE RECOGNIZED STANDARD OF FIRE-PROOF CONSTRUCTION.

THE ROEBLING CONSTRUCTION CO.,

121 Liberty Street, NEW YORK CITY. *171 Lake Street, CHICAGO, ILL.*

SEND FOR CATALOGUE.

THE UNIFORM STANDARD CONTRACT

SAVES TIME IN WRITING CONTRACTS.
SAVES TIME IN READING CONTRACTS.
SAVES TIME LOST IN LITIGATION.

SAVES MONEY FOR OWNER, ARCHITECT AND CONTRACTOR.

REVISED AND IMPROVED.

Adopted and Recommended for General Use by the American Institute of Architects and the National Association of Builders.

$1.10 per 100, $4.50 per 500, $8.00 per 1,000, free by mail or express.

INLAND PUBLISHING CO.,
610 Manhattan Building, CHICAGO.

DRAWING INSTRUMENTS

A. H. ABBOTT & CO.

Drawing Supplies,

Instruments, Tracing Cloth, Papers, Colors, Scales, Levels, Transits, Etc.

BLUE PRINTS.

50 Madison Street, CHICAGO.

Important Litigation Relating to Magnesia Covering Patents.

The Keasbey & Mattison Co., the owners of the patents for magnesia covering, have commenced a suit in the United States Circuit Court for the Southern District of New York against the **Philip Carey Mfg. Co., George D. Crabbs, J. E. Breese, Schoellkopf, Hartford & Hanna Co., J. F. Schoellkopf, Jr., James Hartford, W. W. Hanna, C. P. Hugo Schoellkopf, C. W. Trainer Mfg. Co., C. W. Trainer and Jesse W. Starr** to restrain the defendants from making and selling magnesia covering for boilers and steam pipes containing more than 50 per cent of magnesia, and especially coverings containing 85 per cent of magnesia.

The bill prays for a preliminary writ of injunction, to be continued during the pendency of the suit, and upon the final determination thereof to be made perpetual, and also demands an accounting and damages.

☞All persons are respectfully requested to refrain from purchasing covering infringing these patents, as such purchasing must of necessity lead to suit.☜

Beware of Fraudulent so-called "Magnesia" Coverings as well as those infringing on patents.

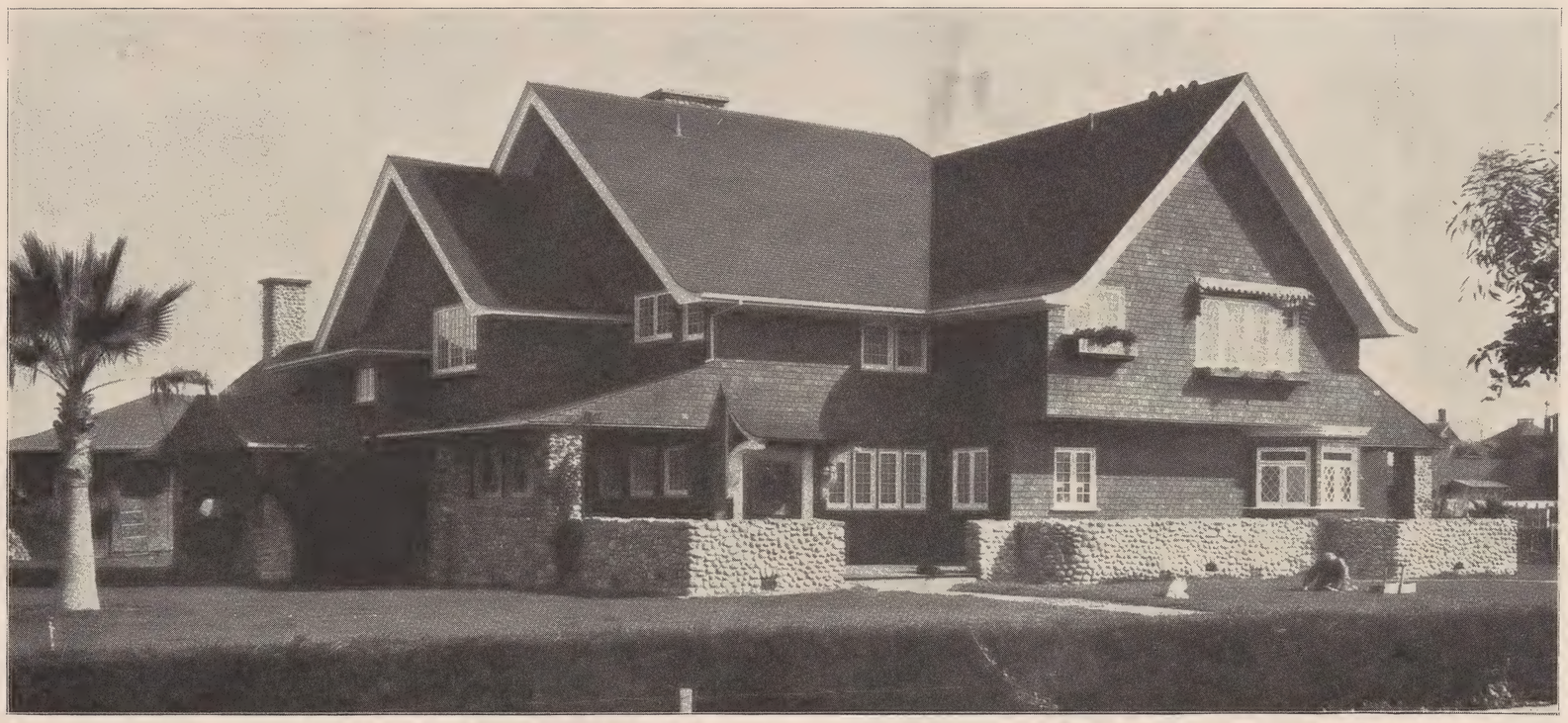
Keasbey & Mattison Company
AMBLER, PENN.

New York, Boston, Chicago, Washington, Atlanta, New Orleans, Cleveland, Cincinnati, Milwaukee.

AUTHORIZED SELLING AGENTS:

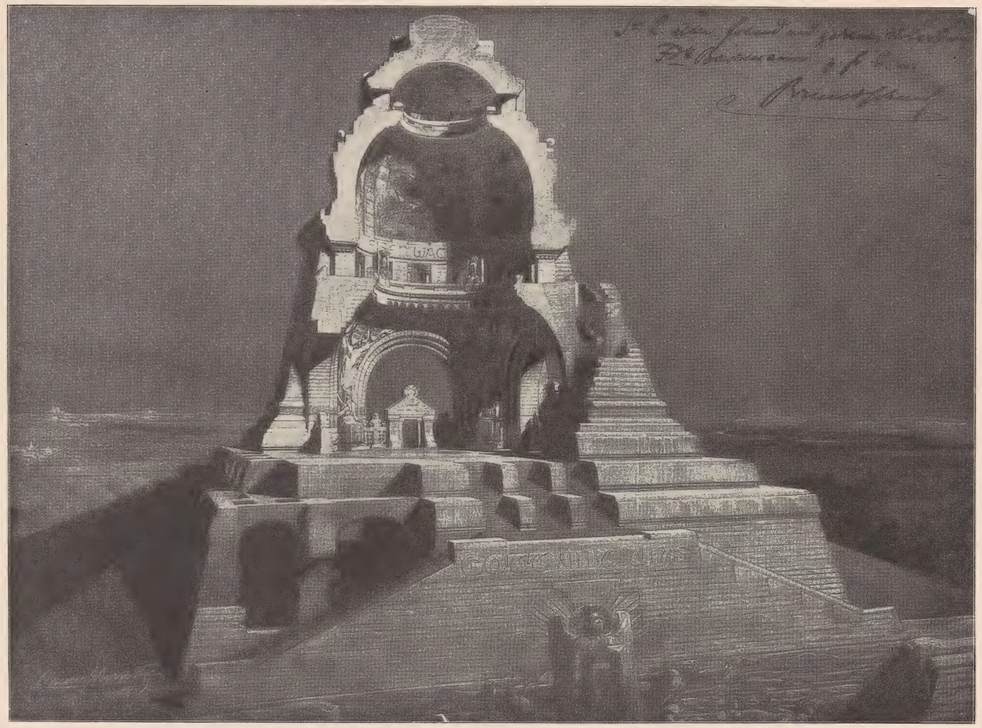
Boston, S. C. Nightingale & Childs	St. Louis, - - - - F. Bocler
New York, - Robert A. Keasbey	Omaha, - - Spencer Otis
Phila , - Magnesia Covering Co.	Kansas City, - - Spencer Otis
Baltimore, - - Wallace & Gale	Chicago, - - Walch & Wyeth
Richmond, - Smith-Courtney Co.	Detroit, - - - S. P. Conkling
Norfolk, - - Henry Walke Co.	San Fr'sco, De Solla-Deussing Co.
Charleston, - W. M. Bird & Co.	Seattle, - De Solla-Deussing Co.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.



RESIDENCE OF GRAHAM BABCOCK, SAN DIEGO, CAL.

RESIDENCE OF L. V. HARKNESS, PASADENA, CAL.



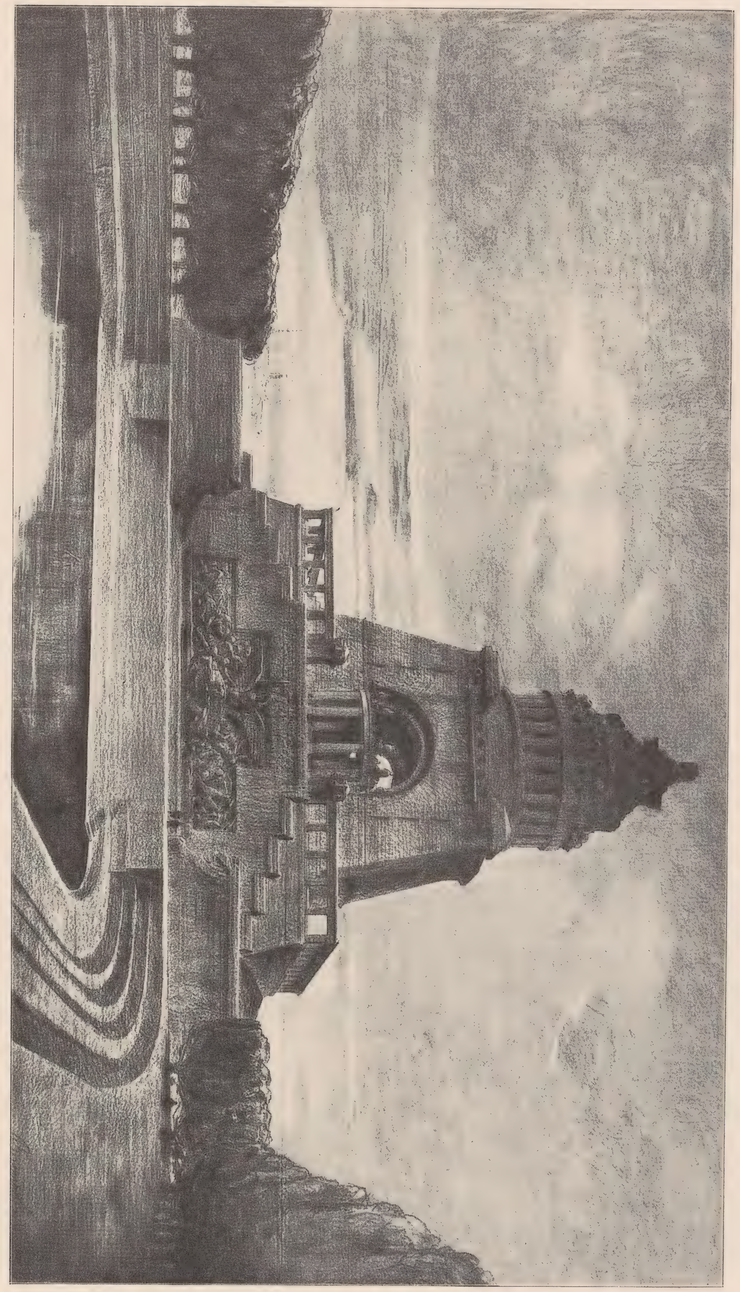
SECTION.

IMPROVED DESIGN, LEIPSIC MONUMENT.

BRUNO SCHMITZ, SCULPTOR.

DESIGN FOR LEIPSIC MONUMENT (1897).

BY BRUNO SCHMITZ, SCULPTOR.



SHAKESPEARIAN CLUBHOUSE, PASADENA, CAL.

INTERIOR VIEW, RESIDENCE OF E. F. CLAYPOOL, PASADENA, CAL.

INTERIOR VIEW, RESIDENCE OF CHRISTIAN C. FEBIGER, PHILADELPHIA.

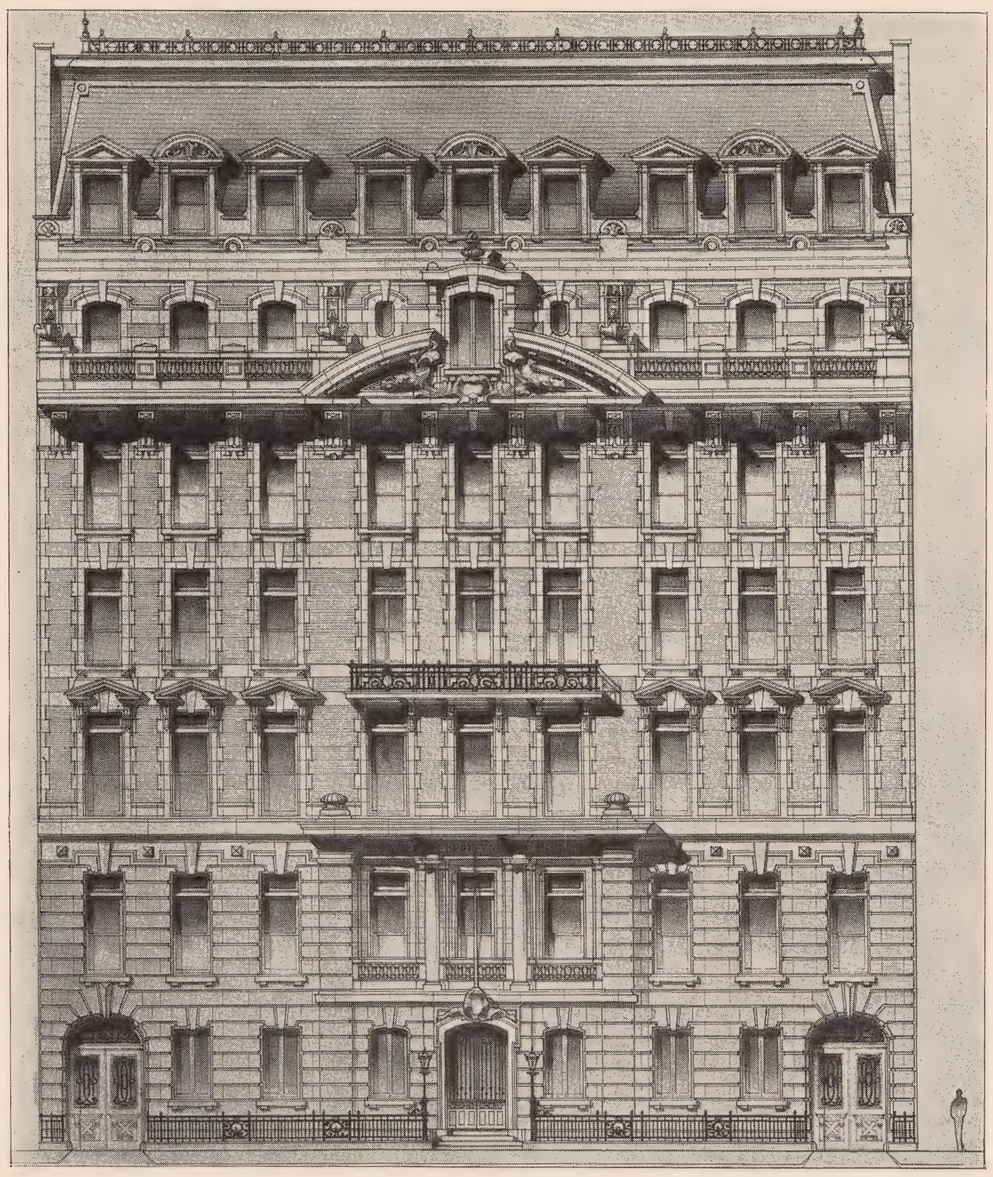
HORACE WELLS SELLERS, ARCHITECT.

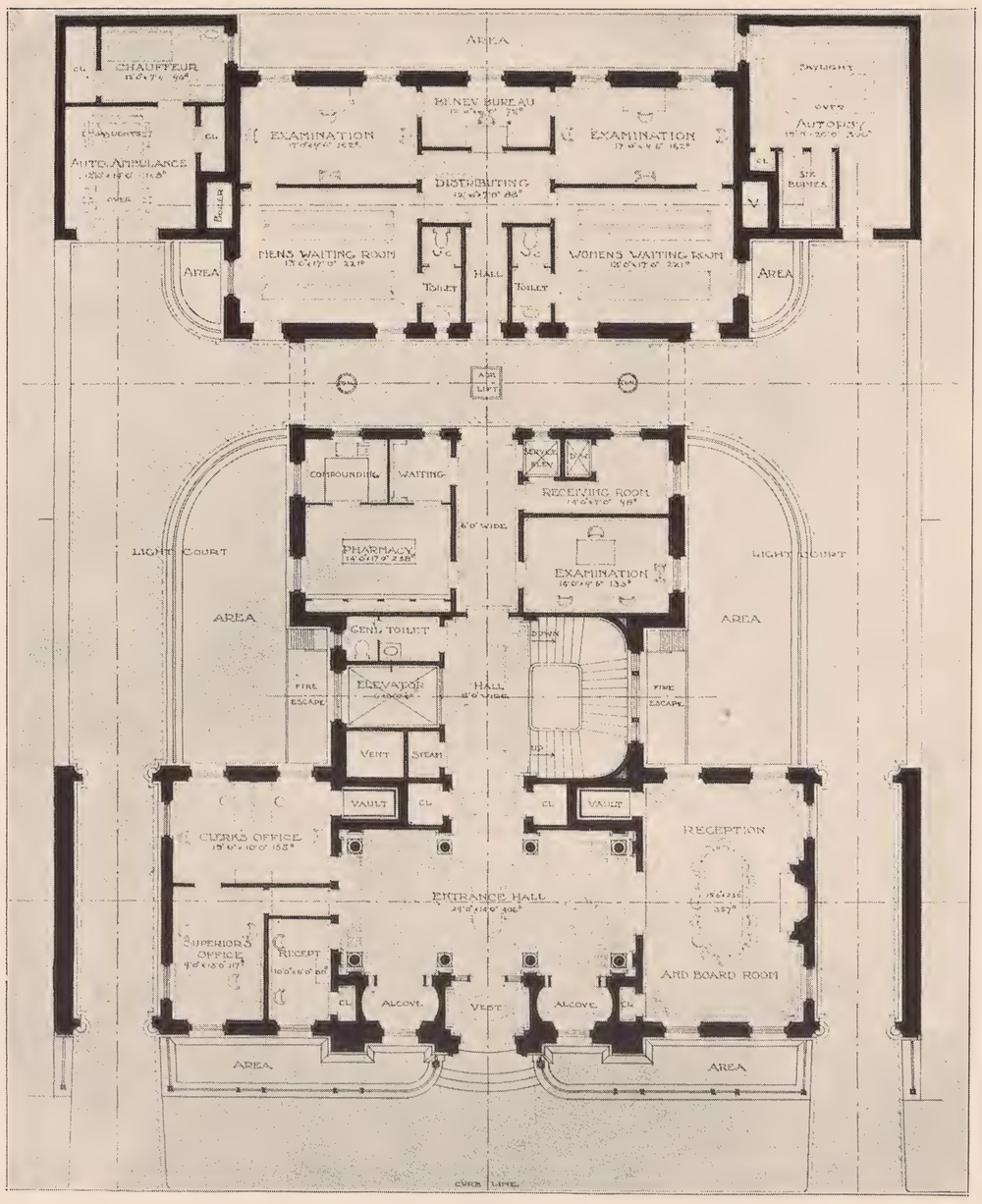
RESIDENCE OF CHRISTIAN C. FEBIGER, PHILADELPHIA.

HORACE WELLS SELLERS, ARCHITECT.

RESIDENCE FOR CLARENCE W. SEAMANS, BROOKLYN, N. Y.

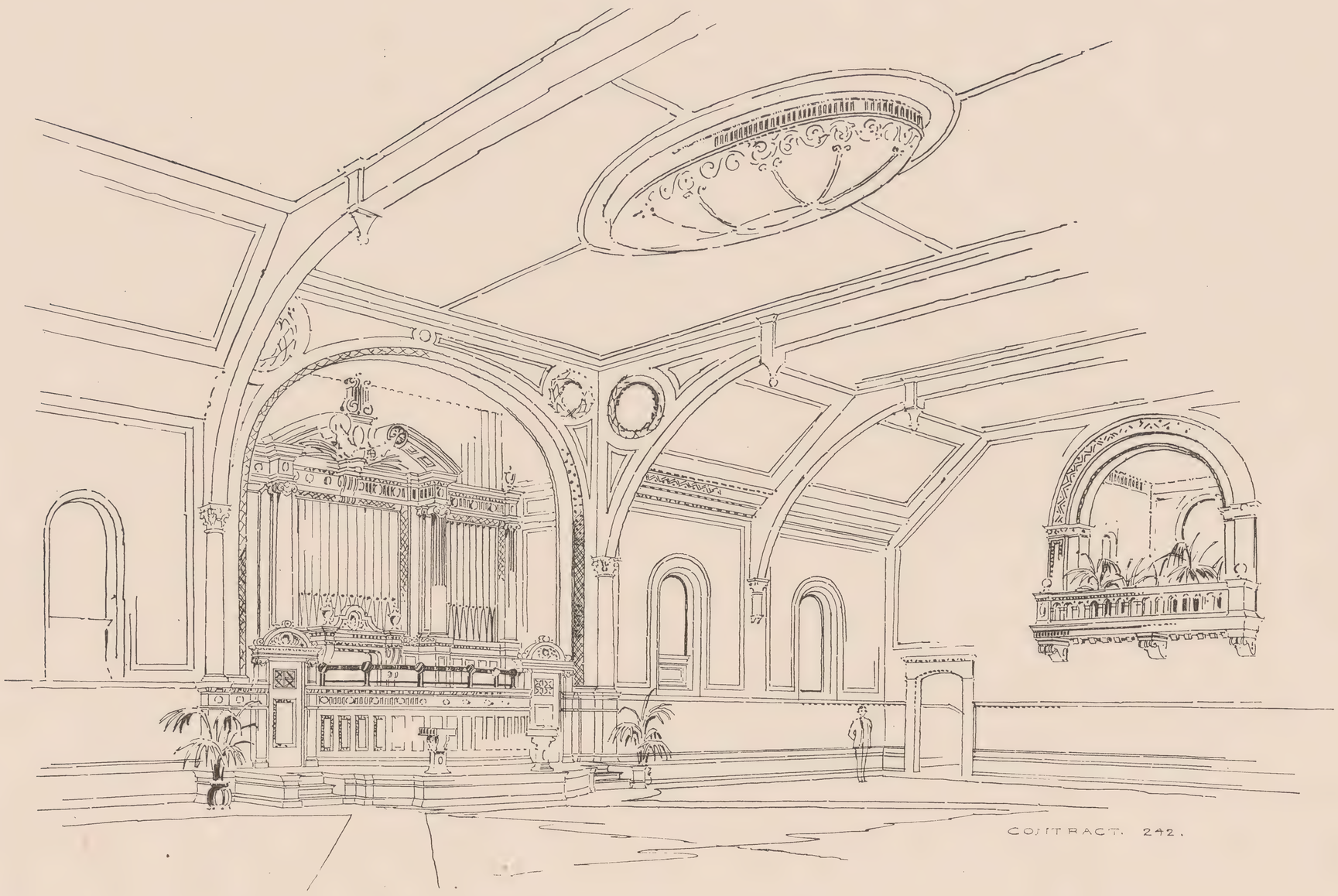
MONTROSE W. MORRIS, ARCHITECT.





PROPOSED FRENCH HOSPITAL, NEW YORK CITY.

WELCH, SMITH & PROVOT, ARCHITECTS.



INTERIOR VIEW, CHURCH OF CHRIST, SCIENTIST, TORONTO, CANADA.

F. R. COMSTOCK, ARCHITECT, NEW YORK CITY.

U. S. COURT HOUSE *and* POST OFFICE ~ *Cumberland, Md.*

· James · Knox · Taylor · · · Supervising · Architect ·

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXXVIII. OCTOBER, 1901. No. 3

A Monthly Journal Devoted to

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

PUBLISHED BY THE INLAND PUBLISHING CO.,

609-610 MANHATTAN BUILDING, CHICAGO, ILL.

L. MULLER, Jr., Manager. ROBERT CRAIK McLEAN, Editor.

SPECIAL CONTRIBUTORS:

C. HOWARD WALKER. D. H. BURNHAM, W. L. B. JENNEY,
HENRY VAN BRUNT, P. B. WIGHT, IRVING K. POND,
LOUIS H. SULLIVAN, ALLEN B. POND, J. R. WILLETT,
WILLIAM S. MACHARG. C. E. ILLSLEY. F. W. FITZPATRICK.

TERMS: Regular number, $5 a year; Photogravure edition, $10 a year. Single copies, Regular number, 50c.; Photogravure edition (including 7 photogravures), $1. Advance payment required.

The columns and illustration pages of THE INLAND ARCHITECT are open to all alike, merit and availability only determining what shall be published. Contributions appropriate to its pages are always desired.

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1900:

PRESIDENT	*ROBERT S. PEABODY, Boston, Mass.
SECRETARY AND TREASURER	*GLENN BROWN, Washington, D. C.
FIRST VICE-PRESIDENT .	WILLIAM S. EAMES, St. Louis, Mo.
SECOND VICE-PRESIDENT .	FRANK MILES DAY, Philadelphia, Pa.
AUDITOR FOR TWO YEARS .	S. A. TREAT, Chicago, Ill.
AUDITOR FOR ONE YEAR .	E. H. KENDALL, New York, N. Y.

BOARD OF DIRECTORS:

For three years.—J. M. Carrère, New York city; James W. McLaughlin, Cincinnati, Ohio; R. Clipson Sturgis, Boston, Mass.

For two years.—Henry Van Brunt, Kansas City, Mo.; James B. Hill, Washington, D. C.; Normand S. Patton, Chicago, Ill.

For one year.—*Arthur G. Everett, Boston, Mass.; *George B. Post, New York city; *Alfred Stone, Providence, R. I.

*Executive Committee.

STANDING COMMITTEES FOR 1900:

Judiciary Committee.—Wm. S. Eames, St. Louis, Mo.; James G. Hill, Washington, D. C.; Arthur G. Everett, Boston, Mass.

House and Library Committee.—Robert Stead, Washington, D. C.; Glenn Brown, Washington, D. C.; Frank Miles Day, Philadelphia, Pa.

Committee on Contracts and Lien Laws—Alfred Stone, Providence, R. I.; W. B. Mundie, Chicago, Ill.; Arthur G. Everett, Boston, Mass.

Committee on Applied Arts and Sciences.—W. G. Preston, Boston, Mass.; F. E. Kidder, Denver, Colo.; Frederick Baumann, Chicago, Ill.

Committee on Foreign Correspondence.—Glenn Brown, Washington, D. C. J. G. Howard, New York city; R. W. Gibson, New York city.

Legislative Committee on Government Architecture.—George B. Post, chairman. Committee—Bruce Price, New York city; John M. Carrère, New York city; James G. Hill, Washington; Alfred Stone, Providence. Alternates—Edward H. Kendall, New York city; E. B. Green, Buffalo, N. Y.; D. H. Burnham, Chicago, Ill.; Robert Stead, Washington.

NEXT CONVENTION AT BUFFALO, N. Y.

THE ARCHITECTURAL LEAGUE OF AMERICA.

OFFICERS FOR 1901-1902.

PRESIDENT	JOSEPH C. LLEWELLYN, Chicago.
VICE-PRESIDENT	RICHARD E. SCHMIDT, Chicago.
TREASURER	AUGUST WILMANNS, Chicago.
CORRESPONDING SECRETARY . . .	EMIL LORCH, Chicago and Detroit.
RECORDING SECRETARY	HUGH M. G. GARDEN, Chicago.
ADDITIONAL MEMBERS EXECUTIVE BOARD	R. C. SPENCER, JR., Chicago. PROF. NEWTON A. WELLS, Urbana, Ill.

NEXT CONVENTION AT TORONTO, CANADA.

Death of Napoleon E. H. C. Le Brun.

Napoleon Le Brun, one of the oldest and most distinguished members of the profession, has passed to the great unknown. Mr. Le Brun left many monuments in Philadelphia, the city of his birth, as well as in New York, where he had resided since the Civil War. He was born in 1821. His father was a diplomat and scholar and the son inherited his brilliant qualities. He studied under Thomas U. Walter, who designed that grand old dome of the Capitol at Washington, and from 1842 to almost the time of his death he practiced continuously and successfully, meanwhile receiving many civic and professional honors. For years he took a most active interest in the Institute affairs. Latterly his sons were taken into partnership with him under the firm name of Le Brun & Sons. Some of the more notable of his buildings are the Cathedral, the Academy of Music, the Tabernacle, the Girard estate buildings and several county buildings in Philadelphia, the Masonic Temple, Metropolitan Life Insurance building, Home Life Insurance building, and many hospitals and county buildings in New York city. Mr. Le Brun was universally respected and his genial presence and fatherly advice will long be missed in the councils of the Institute.

The St. Louis World's Fair of 1903.

The Louisiana Purchase Exposition at St. Louis, Missouri, or what will be known as the World's Fair of 1903, has been inaugurated by the selection of a chief of construction and three other chiefs for other departments. Under the title of Director-General of Construction, Architect Isaac S. Taylor has been given charge of construction and maintenance, and he has selected a corps of architects to design the buildings. These will be apportioned to the several architects in the Commission. It is understood that the "free classical" as illustrated in the buildings of the Columbian Exposition will be followed in the designing. It is intended to expend about $11,000,000 in the construction and it is expected that this fair which will make the centennial of that purchase from France that gave to the United States the greatest and most important portion of her territory will eclipse any previous exposition of human progress. From Duluth, upon the northern boundary of the purchase, to the Gulf, lies the richest and largest valley in the world, and its acquirement by the United States at so critical a stage in her history can not be too greatly celebrated, and a nation's appreciation of the work of its founders should be signalized by the greatest exposition the world has ever seen.

A Protest Against Foreign Competition.

We note that the New Jersey architects have risen in their might and are protesting against the terms of the Essex County Courthouse Competition. They are "insulted" at the idea of New York architects being invited in preference to home talent and have bound themselves "to do all in their power to unite the architects, contractors, building trades and other persons and organizations interested in fostering home trade, in a determined and persistent effort to protect local interests when they are assailed and to insist that local talent shall in all public enterprise be treated as fairly as talent from other States." When will the path of competition be a smooth one?

THE BATTLE OF NATIONS MONUMENT AT LEIPSIC.

BY FREDERICK BAUMANN, ARCHITECT.

THE unparalleled genius of Napoleon had won complete mastery over the continent of Europe excepting Russia, and nominally restored the empire of Charles the Great. Prussia, especially vainglorious with the past deeds of Frederick the Great, had been crushed with more bitter severity than any other country; one half of her territory confiscated and the other

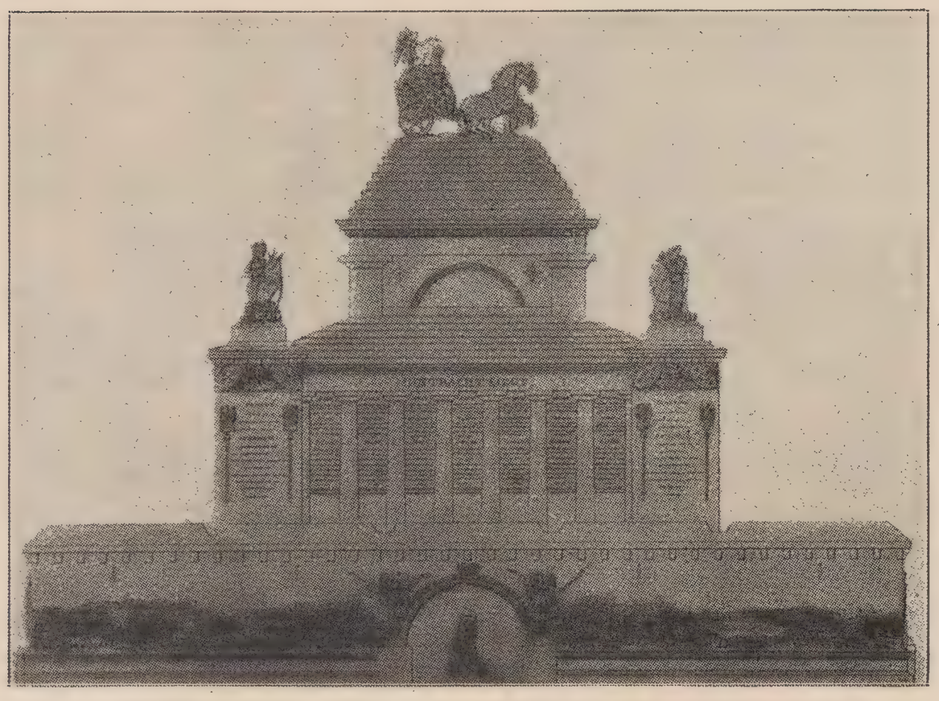


FIG. 1.

Design by A. Weinbrenner, Karlsruhe.

half kept under the surveillance of the enemy, her King had become but a sort of tool under the will of the conqueror. Her adored Queen Louisa had died in 1810. Hope for final release of any kind was wholly out of sight.

Yet this release was destined to come. The Emperor, who had become gradually subject to bodily ailments, and whose pride and vainglory had grown beyond all measure, was not any more the Bonaparte of 1796; he had lost the steadiness of his powerful genius. On the other hand the glowing patriotism of Prussia's leading men kept arising and they succeeded in preparing a way for redemption. Their introduction of the Landwehr system made out of the permitted forty thousand soldiers a powerful army, and a number of Government reforms and the establishment of sundry patriotic institutions instilled a growing feeling of hope into the people at large, so as to enliven its courage.

After the last discomfiture of Austria, in 1809, the Treaty of Tilsit, first made between Napoleon and Alexander of Russia, began to loosen. Within the following two years it broke, and immense preparations for an invasion of Russia were the consequence. In 1804 Napoleon had been crowned at Paris, with the insignia of Charles the Great, and it was his ambition to be crowned at Moscow with the insignia of Constantine also. (1.) The invasion, to the great chagrin of Napoleon, found little or no active resistance, prior to his advance within the vicinity of Moscow. There at last the Russian army was ordered to be arrayed for a battle, which resulted in a most formidable slaughter, in which forty thousand Russians were slain and discomfitted, against twenty-eight thousand of the French. But Napoleon failed to annihilate his adversary, as he had done at Jena, and could have done at Marengo and at Austerlitz, had not their immediate armistice been offered. It is held by military writers of high rank that, as the case was, utter destruction of the Russian army would have been accomplished by a final setting in of the French reserve, consisting of twenty-seven thousand of the celebrated guards. It is not understood what were the motives of Napoleon in omitting this charge, the result of which would have induced the Russians, as it is claimed, to offer terms of peace. It may be that he was under a fit of consummate vainglory, as some have it, or under one of gout or similar ailment, as others contend. But the great historic fact is that by this omission, or impossibility, which it may have been, he was irretrievably beaten. He led into Moscow an isolated army of but one hundred thousand sound combatants, and was flanked by Russian armies superior in joint numbers. His position was, for this reason, utterly untenable, no matter whether Moscow was burned or not. The dire act of Count Rostoptchin, therefore, should be regarded as springing from a patriotism which had assumed an air of extreme fanaticism, thus telling what sort of stuff Russians are made of. As it is, to the military historian the burning of Moscow remains an act of fanatical nonsense. But it was a matter of still greater nonsense, so it is also claimed, on the part of Napoleon to tarry for a whole month at a spot which, under impending conditions, it was impossible for him to maintain. His vainglory appears to have stricken him at that time with utter blindness as to facts. He was in the position of a beaten host, yet he had the affrontery to offer terms of peace to the Russian Government, as though he had been the victor. Negotiations were thus purposely dragged along until, after a month of serious delay, orders were given for the inevitable retreat. No connection being had with any base of supplies, foraging of the country between roaming bands of Cossacks was to be depended on. That, under such circumstances, any single man of the whole army kept alive or uncaptured was owing merely to the superior discipline of the French soldier and the genius of his leader. Severity of the winter, terrific in the common opinion of people, and so described in shuddering romances, is here indeed but a sort of accompanying factor in the dire fate of the army, and not its main ruin. Had French discipline and the genius of Napoleon been less, or the military leadership of the Russian generals more than it was, not a soul of the entire French army would have crossed in the Berezina, no matter as to the season of the year. The Russian winter of 1812 was comparatively mild. (2.) There was thaw weather at the end of November, and two nights of slight frost had haply enabled the French to build their bridges across the swollen Berezina in time. But the retreat across this river was possible only by dint of the strategic genius of Napoleon, who had succeeded in deceiving two Russian armies so as to gain two days' time for his purpose. Thus there arrived on the western shore of the river eight thousand soldiers and a large number of wretched stragglers. The whole number of Napoleon's soldiers thus

FIG. 2.

Design of Prof. Schiefelbein, Berlin, 1863.

returning in sore condition from all parts of Russia is estimated at fifty thousand. For prosecuting the war it was necessary to organize an entire new army, and due time was granted to Napoleon to bring this about.

General York had been the leader of a Prussian army of eighteen thousand men, operating under Macdonald against

Petersburg. Learning the wretched condition of the remnants of Napoleon's great army, his patriotism at once led him to positive action on behalf of his downtrodden fatherland. Without awaiting orders he combined on December 30 with the Russians, and sent a patriotic message to his King, praying for approval of his act. But the King failed to appreciate this heroic deed. Still remaining in fear of the power of Napoleon, he removed York from his command and ordered him to be tried by courtmartial. It took the prayer of all the patriotic leaders in the kingdom to finally convince the King of the ardent desire of the whole nation to be at once summoned to arise against French misrule and oppression. Thus he issued on March 13 the celebrated address to his people, with the effect that within a month's time one hundred and fifty thousand brave men stood in line to redeem their country or die in the effort. But the delay in the meantime had been very unfortunate. Without it the shattered remnants of the French army might have been annihilated at once, and all fortresses retaken. As it was Napoleon stood with a new army of three hundred thousand men on the line of the Elbe. A majority of his troops were made up from the states of the Rheinbund: Saxony, Bavaria, Würtemberg, Baden and other parts of Germany, though volunteers from all sections of the fatherland had enrolled with the Prussians. Thus in this holy war for German liberty, for release from oppressive foreign bondage, German stood against German, brother against brother.

The Prussian troops were by far the best drilled and the hardiest of all the combatants. They had the truest and bravest leaders. The genius of Napoleon, as already remarked, had become intermittent and subject to the effects of vainglory. On the second day of May the armies met at Luetzen (3) for battle, in which, during a whole day, the allies kept their position against superior numbers. But finding, at dawn of the following morning, the French army massed in a position specially Napoleonic, ready and prepared to crush their center, they slyly withdrew. Making, two and one-half weeks later, another stand at Bautzen, they met with a like fate. The genius of Napoleon had been thus far as steadfast as that of his earlier days. The

FIG. 3.
Design by a Munich artist, 1864.

allies retreated toward the mountains of Silesia, while Napoleon, outflanking them, took position at Breslau. Now, however, follows a remarkable, sudden act in his proceedings; instead of marching on to crush his enemy, he decides to make an armistice lasting until August 16. In his efforts to gain the assistance or stead neutrality of his father-in-law, the Austrian Emperor, he shows himself in a blustering and overbearing spirit, especially so in his treatment of Chancellor Metternich, a soulless fellow, who is even suspected of having been ready for a favorable deal with him. Napoleon's conduct at their last meeting being especially rude, Metternich parts in anger and Austria takes sides with the allies.

The position now is that the allies muster three hundred and fifty thousand men, against three hundred and twenty-five thousand under Napoleon, whose main stay is at Dresden; Macdonald faces Blücher in Silesia, and Ney and Oudinot march toward

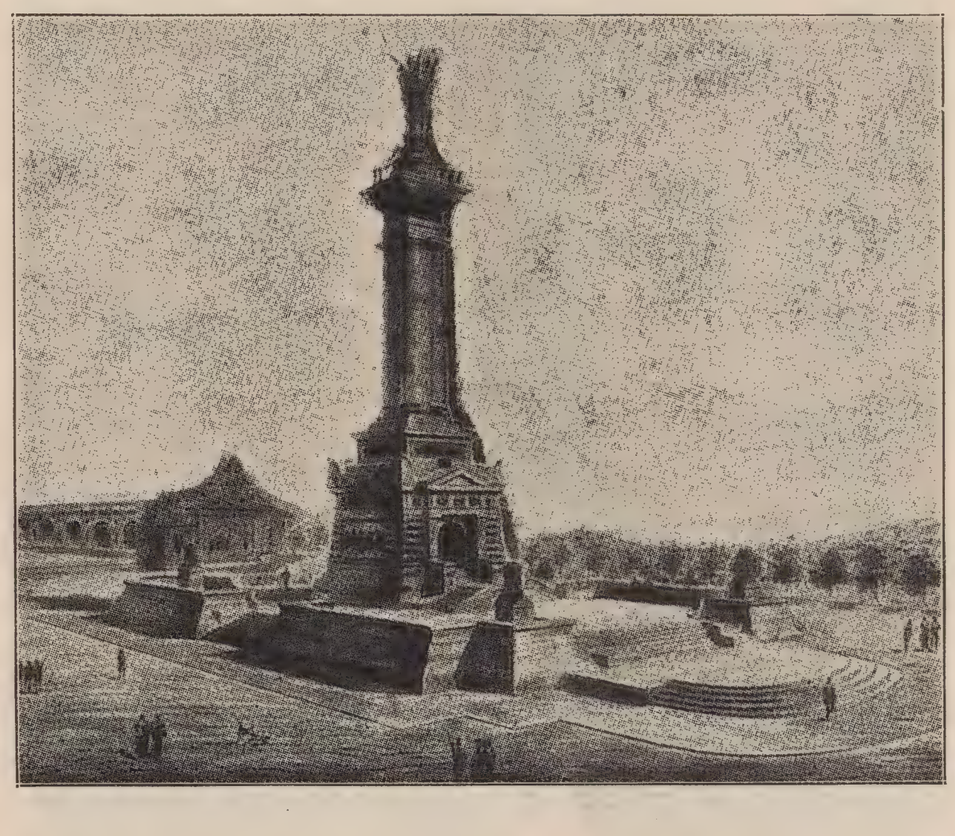


FIG. 4.
Design by architects Ludwig & Hulszner, Leipsic, 1888.

Berlin, which is guarded by Bernadotte and Buelow. The first battle is fought on August 23, in the vicinity of Berlin, and Buelow beats Oudinot. Three days later Blücher nearly destroys the entire army of Macdonald. One day thereafter Napoleon beats the main army under Schwarzenberg at Dresden, but neglects to reap the fruits of his victory. On the 30th of August an army corps under Vandamme is made captive at Kulm. On the 9th of September Buelow beats Ney and Oudinot decisively at Dennewitz. The allies now moved to new positions, and on October 3 York forces his passage across the Elbe at Würtemberg, so that Napoleon is forced to concentrate the remnants of his single corps with the main army at Leipsic.

There on the 16th of October the great battle of Nations begins, between one hundred and eighty-four thousand men under Napoleon against two hundred thousand of the allies. The result of the day's fighting is that the allies are able to keep their positions. Blücher, at the beginning of nightfall, had reconquered the key to his position. The following day is one of rest and reorganization, but the advantage now turns decidedly in favor of the allies. They receive more than one hundred thousand fresh combatants, with them eight thousand Saxons and their officers, the first of the Rheinbund troops who are actuated by a feeling for their common country. The battle, renewed on the early morning of the 18th, ends at night with a decisive victory for the allies. Napoleon is forced to decide on a hasty retreat, in which, by dint of his masterly generalship, he succeeds in leading part of his army, seventy thousand men, across the Rhine — part of his army, because all of his German troops had at last become conscious of their national duty. At the last hour they had decided to fight henceforth for their country.

Thus the great battle of Leipsic for once had brought on a united Germany, which, however, was not permitted by the will of heartless and wily diplomatists, as well as by certain features of the situation, to come to an actual existence. Metternich and his tribe did not want it, and had they been willing, there were still two antagonistic heads, one at Vienna, the other at Berlin, who, as it was, could never have agreed. The Frankfort National Assembly of 1848 undertook to recreate the high office of German Emperor, and elected thereto the King of Prussia. But he wisely declined the honor. Who knows what sort of endless complications might have followed his acceptance? It was left to the wisdom and pluck of a Bismarck to sever the sort of Gordian knot. But whatever the actual course of events has been,

burned or not. The dire act of Count Rostoptchin, therefore, accomplished without the battle of Leipsic, on the happy issue of which it is irrevocably based. Leipsic, therefore, is in a sense to modern Germany what Salamis was to Greece, Poitiers to Christianity.

German devotion was at once directed toward the erection of a great monument on the battlefield of Leipsic. *Fig. 1* shows

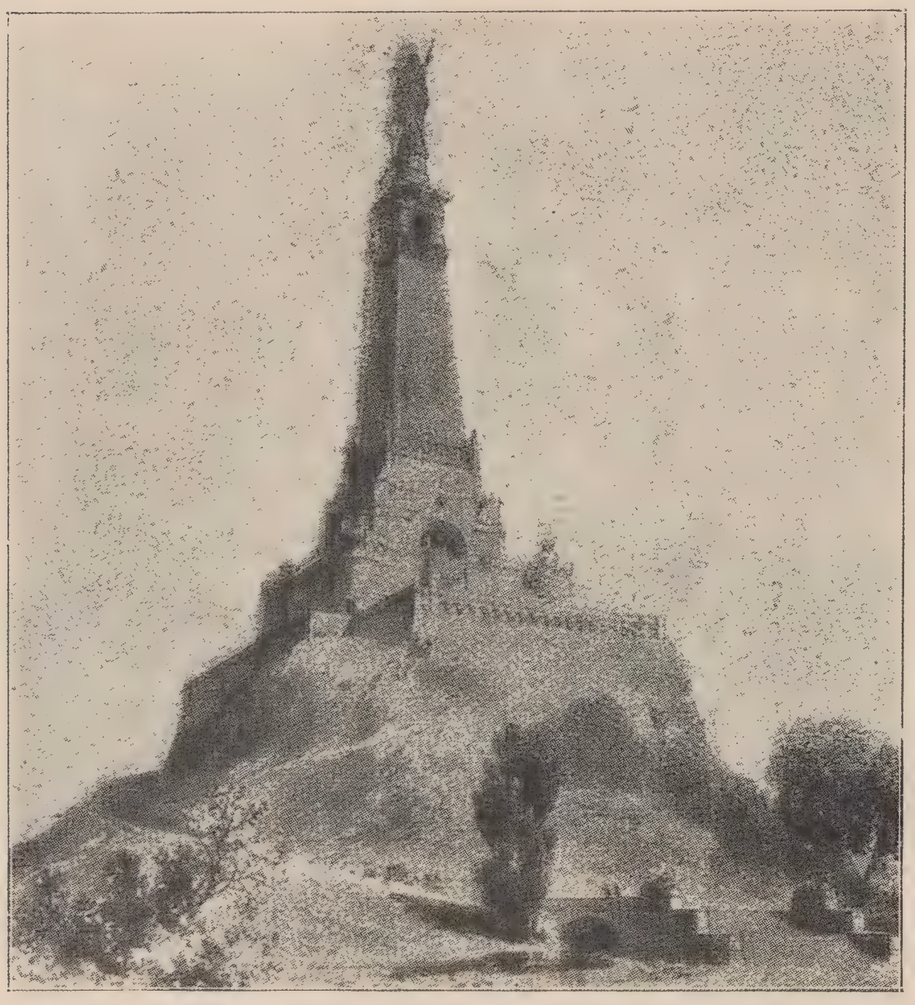


FIG. 5.
Competitive Design, First Prize, C. Doflein, Berlin, 1895.

the outline of a quaint design of the kind made prior even to the return of Napoleon from Elba, by A. Weinbrenner, of Karlsruhe.

Fig. 2 shows design of Professor Schiefelbein, Berlin, made 1863.

Fig. 3 design of a Munich artist, 1864.

Fig. 4 design of architects Ludwig & Hulszner, Leipsic, 1888.

Fig. 5 competitive design, first prize of 1895. C. Doflein, Berlin.

Fig. 6 competitive design, first prize of 1896. W. Kreis, Charlottenburg.

Not any of the many designs offered in the two competitions having been found fit for execution by the national committeee appointed by the people, though prizes were awarded as agreed, it was resolved to put the difficult task into the hands of Bruno Schmitz, who had so satisfactorily shown his mastery over subjects of a related order by his happy design for the very popular monument erected upon the Kyffauser mountain, and in the United States, through his design for the soldiers' monument erected ten years ago at Indianapolis. And the trust in Schmitz was and is such that he was charged to produce what he believed to be best for the purpose, without regard to any possible contrary opinion on the part of any member of the committee. This committee is not made up of men who have plenty of money and little education and taste, as it is mostly the case on this side of the great water; it is made up of men generally poor in worldly possessions, but rich in thought and taste, and thus modest enough to acknowledge their self-evident inferiority to an expert on matters which are the bone and sinew of his calling.

Hastily considered, it would seem to be a ready task to produce a design for a gigantic monument of any kind. Yet the higher the standing of the expert called upon, and the deeper his most earnest thoughts upon the subject matter, the more serious and difficult it grows, because he will become convinced that he is bound to depend altogether upon his own inventive resources for arriving at a rational solution of the problem before him. It is thus to him not a matter of pride alone; it is also one of the loftiest duty. Evidently the commission in charge had thus most consciously set the stake for the great problem, and finding all competitive projects wanting, entrusted the great work to Bruno Schmitz as the most competent artist known in the country. And the work thus far brought to light shows, it must be granted, that they were not deceived in their trust. In 1897 Schmitz produced the charming design given on the accompanying sheets. But regarding the upper part of it as too ornate, and questioning, as I believe, the very correct harmony between its lower and upper parts, he made an improved design, more harmonious and simple, as it ought to be, though still subject, as he claims, to further study. It must be regretted that the drawing for this design, as shown on the sheets, has been shaved rather too deeply. The third picture given is a perspective section in two cuts. It shows in corresponding forms the monument's interior, representing, in bas-reliefs upon its walls, a history of the related events.

The height of this interior will be about two hundred feet in all; the height of the entire monument, from the plane of the battlefield, where it is to stand on an artificial hill, will be about equal to that of the great pyramid of Gireh. But it will not be, like this, a mere geometrical pile of plain stone; consummate high art, such as is at present in command, will be its paramount characteristic (4). Its dedication will take place on the 18th of October, 1913, and this, as must be expected, under shouts of a multitude of people, such as never was assembled anywhere upon a previous occasion of the kind. The common tie between the

FIG. 6.
Competitive Design, First Prize, W. Kreis, Charlottenburg, 1896.

German tribes, first spun at Leipsic, and knotted by the glories of a later war, will thus be rendered indestructible for all time to come.

ADDENDA.

(1) It is stated that these insignia were carried in a coach of extreme richness, which was annihilated, as is believed, prior to the retreat.

(2) See York von Wartenburg: Napoleon als Feldherr II., page 173. The writer, a renowned member of the German general staff, died lately at Peking from the effect of gas proceeding from a Chinese stove. He was a grandson of the York mentioned.

(3) This Luetzen is the same place at which, in 1632, the celebrated battle was fought between Wallenstein and Gustavus Adolphus, who therein lost his life.

(4) Many monuments for related purposes have been erected the world over in all ages, but none anywhere of equal significance, grandeur and art distinction. If our Washington Monument is thought of, it should be confessed that this is a grand production merely in the line of mechanical engineering, and utterly bare of all characteristics of art proper, so that at the time many prominent and progressive citizens were justly opposed to its erection.

In a world's competition in 1886 for a soldiers' monument for the State of Indiana, U. S. A., Bruno Schmidt won the first prize. The competition was a close one and aside from foreign architects many of those most prominent among the architects of the United States competed. The shaft dominates the Statehouse dome and is a magnificent creation. It is erected in the capital city of Indianapolis in the center of a large park.

LIBRARY CONSTRUCTION.*

The National Library at Paris has for many years been in danger of destruction by fire by reason of its situation, as it is inclosed by four narrow streets in a busy commercial locality. Up to a short time ago, indeed, parts of the building were sublet for shops and dwelling-houses. It has been apparent to the authorities for a long time that the library should be removed, and plans were made for a new building, to be placed between the Louvre and the Tuileries. This for some reason fell through, and then an attempt was made to transfer the collection to the Luxembourg. This suggestion also was not carried into effect, and the custodians seem now to have arrived at the conclusion that they must make the best of their present site. Much of the old building, some of which was built by Mazarin, has been pulled down, and new reading-rooms and book stores erected worthy of the collection.

In the construction of a new library of any importance an attempt should be made to make it fireproof. Of course, it is impossible to make a building which has to be artificially lighted and heated, and containing wood, paper, furniture and other inflammable material, entirely so, but certain precautions may well be taken. The walls should be of terra-cotta or brick, and of a good thickness. The inner walls should be taken from the basement up to, and through, the roof, so as to divide the building into as many separate portions as possible. The book stores should be built in a series of rooms rather than in one large room, and all rooms should be separated by double iron doors, or, what is even better, thick doors of oak covered on either side with iron plates, with a space the thickness of the wall between them. The iron or steel girders and ties used in construction should in all cases be covered with terra-cotta or fireclay blocks, to keep the direct action of the flames from them. Due provision must also be made for their expansion under the influence of heat, for if this is not done, it is probable that, in case of fire, the outside walls would be pushed outward, and the whole structure collapse. One of the many different methods of making concrete floors should be adopted for all floors and ceilings. Wood and felt should not be used in the roof, but iron, and some uninflammable non-conductor. In large libraries the heating apparatus, refreshment rooms, mess rooms for the staff, engines and boilers for the production of electric light, etc., should be separate and distinct from the main building, and connected with it only by corridors with iron doors. All wood used in construction should be chemically treated, and if dust-blinds are fitted to the bookcases, they should undergo a similar preparation. A well-considered scheme of fire-drill for the attendants should be in force, and telephonic communication, tested daily, should be laid on to the nearest fire-station. Provision should be made of hydrants upon each floor of the building, and buckets filled with water always be available. If the latter are placed in entrance halls, or where they may be exposed to severe frost, a handful of salt should be placed in each to keep the water from freezing.

The use of automatic fire-sprinklers in the book stores, unless applied solely to the floors, is only mentioned to be condemned, as the water would do almost as much harm to the books as a fire. The Mitchell Library, Glasgow, has adopted a simple method of precaution against damage which might result from sparks from fires in the adjacent buildings. Tubes have been taken up from the water mains to the roof of the building, and are run along the tops of the ridges of the skylights. They are perforated with small holes, and upon turning a tap in the basement a powerful stream of water is forced through in the form of spray, which effectually wets the whole roof, and would keep in check, if not extinguish, the fire of any burning brands, sparks or cinders which might fall upon it. In fixing such a system, care must be taken to so arrange the levels of the pipes that no water can remain in them, but must drain away at or near the tap in the basement. If this is not done the imprisoned water will freeze in the pipes and stop the passage at the time probably when it is most required.

One valuable security against fire may probably be found to be the cases invented by the eminent bookbinder, Mr. Zaehnsdorf, for the protection of books of especial value. They have successfully borne the ordeal of an actual conflagration at the burning of Lord Carysfort's library, and have been tested with encouraging results by the present Keeper of Printed Books at the British Museum. On this occasion the only part of the paper charred was that actually in contact with the inside of the case, which would not have happened at all if the books tested had been bound. The expense of such cases is, nevertheless, a serious obstacle to their employment, but in practice it would probably be found that separate cases were unnecessary, and that it might even suffice to line the shelves with the incombustible material.

The flooring of the public rooms of libraries should be as noiseless as possible, and of a material that is warm to the feet, and capable of being readily cleaned. The entrance halls and lobbies will be best paved with mosaic or encaustic or glazed tiles. These should be of a light color, for this part of the building is generally the worst lighted. Stone floors laid in large squares are not recommended, as they are apt to wear irregularly. Marble looks well, but has been condemned by many for its sonorousness.

In the reading-rooms and reference library, wood is generally used. If it is not intended to cover the floors, the best floor will be one made of wooden blocks laid upon a cement foundation. Pine and deal are most often used for cheapness, but they wear unsatisfactorily, and, if scrubbed much, soon show the grain and become ragged. Oak blocks are used in the Minet Library, and form a close floor almost impervious to damp and dirt. The most suitable covering for a wood floor is cork carpet or corticene; this can be obtained nearly half an inch thick, and it seems to consolidate with heavy traffic. A block floor is unsuitable for covering, as the sharp edges cut the material and cause it to wear. Covered floors should be made in the ordinary manner, and of well-seasoned wood that will not readily warp. Great care should be taken to see that the wood is dry and well-ventilated underneath before the cork carpet is laid upon it, for if it is done while the wood is at all green, dry rot will set in, and the floor be destroyed.

NATURAL AND ARTIFICIAL LIGHTING AND HEATING.

The question of the lighting of the library, both by day and night, is most important. It is best to err on the safe side, and give too much natural light than too little; for it is an easy matter to subdue with blinds too great a light, but the initial mistake of a faulty natural lighting can only be remedied by the use of artificial illuminants or costly structural alterations, if indeed the latter are even possible. In designing a library the architect should adopt a style which will admit of high windows with square tops, for a square foot of clear glass two feet from the ceiling will admit more light than ten square feet at the same distance from the floor. This proposition is very elementary, but in how many cases do we see it forgotten, and the comfort of the readers sacrificed for an artistic but unsuitable elevation? A striking instance of this want of foresight is seen in the Dundee Free Library, designed by Sir Gilbert Scott. Here we have Gothic-pointed windows, suitable indeed to give the "dim, religious light" of a cathedral, but of little use for reading the small print of newspapers; and so the building, outwardly artistic and handsome, is internally a failure.

Side windows in the news-rooms should be placed as high as possible from the floors, so that the light may travel readily over the newspaper stands and racks. Double windows are advantageous when the library is within earshot of noisy traffic, and also in cold weather, as they diminish the draught caused by the hot air of the room chilling against the cold outside glass, the layer of air between the two casements being a bad conductor of heat. Windows should be in definite proportion to the size of the rooms they have to illuminate. If the library is situated in a street of ordinary width, and is not overshadowed by lofty buildings, there should be a minimum of eight square feet for each 500 cubic feet of room space. On upper floors a slightly smaller proportion may suffice. In relation to this question the aspect of the library should also be considered; a room facing south will do with less window space than one facing north. Large squares of plate glass are better than the small panes or leaded lights so often used. It may sometimes be desirable to glaze the lower parts of the windows with tinted glass to prevent overlooking.

The best light for reading is that which comes from the left side of the reader, so newspaper stands and tables should be placed as far as possible at right angles to the windows. If light can only be obtained from one side of a room, its maximum width should not exceed 30 feet, and only be that if the room is lofty and the windows high up. The color of the walls is an important factor, as dark colors absorb much of the light, while light colors reflect and diffuse the rays of light which fall upon them. A

* Extracts from "Library Construction, Architecture, Fittings and Furniture," by F. J. Burgoyne. London: George Allen, 1897.

dado of glazed bricks or tiles around reading-rooms is of value, from a sanitary point of view as well as that of helping to diffuse the light.

So far, we have considered the lighting of rooms by side lights only. A top light can be obtained in some of the rooms of most buildings, and its use is often advantageous. The readers can be arranged without regard to shadows, as all parts of the room are equally well lighted, and there is no limit to the size and shape of the rooms. The inconveniences of top lights are, the difficulty of keeping them rain-proof, and the draughts which are caused by the heated air ascending, chilling against the cold glass, and falling back again in cold currents. The first defect can be minimized by inserting clear glass windows in the clerestory only, and not in the slope of the lantern. The second can be met by an inner glass ceiling, which also has the advantage of intercepting the direct rays of the sun, and so keeping the room at a low temperature during the summer months. In the Edward Pease Public Library, Darlington, the roof of the reading-room is ceiled in this manner with lightly colored stained glass. Each square is lifted about two inches from its bed by supports at the corners, and so allows free egress for the vitiated air, which passes through into the large open space between the ceiling and roof, and from thence into a ventilating shaft.

The best artificial lighting of a library is undoubtedly that by electricity; first employed, as is believed, at the Liverpool Free Public Library, and shortly afterward at the British Museum. Not only does it keep the air pure, and at an even temperature, but it has no products of combustion, like those from gas, to rot the bindings of the books and dirty the decorations of the rooms.

The system of lighting best adapted for libraries is that of a plentiful supply of 8-candle-power lamps, or larger, for the reading-tables, each provided with a separate switch, so that it can be turned off when not in use. For large and lofty rooms there should be provided, in addition, two or three arc lamps, with an opal shade or tray underneath, to reflect the light on to the ceiling, from which it will be deflected in a diffused form downward over the whole room. A few gas lights should be introduced, especially on the staircases, for use if, from any cause, the electric light should fail.

On gas lighting little need be said. The forms of lighting which convey all the products of combustion away from the room into a ventilating shaft are undoubtedly the best. But a word may be said as to the position of the lights, as they are generally placed much too high above the readers for the most effective use of the light. A height of 8 feet 6 inches from the floor will be found to give the best results.

The heating and ventilation of libraries is a question upon which much could be written. Taking all things into consideration, heating by hot water on the low-pressure system gives the most satisfactory results.

For the low-pressure system of heating by water, pipes of from 2 to 4 inches inside diameter are used. The water leaves the furnace boiler, which is placed at the lowest part of the apparatus, at boiling point, and circulates until it returns to the boiler, where it is heated again. The advantages of the system are that the risk of fire is reduced to a minimum, for no part of the pipes can have a higher temperature than 212 degrees Fahr.; and an equable temperature can be readily maintained, as the heat is easily regulated and controlled. The furnaces are economical, as any fuel capable of generating heat sufficient to boil water can be used. In fixing the pipes, a word of caution may be given against laying them in trenches in the floor with surface gratings. Not only is more heating surface necessary, for a great part of the heat is radiated into the brick channels which hold the pipes, but they are most unsanitary. Dirt, dust and filth fall through the grates and collect around and under the pipes, where it is difficult to be removed, and as soon as the pipes get warm, a constant current of fine dust ascends with the heat and contaminates the air. Hot-water pipes should in all cases be run on brackets around the room, so that the dust can be wiped from them daily with a wet cloth. Radiators, or coils and stacks of pipe, should be fixed near the doors in entrance halls, and adjoining all fresh-air inlets, to warm the air entering the building. The boilers and main pipes used to convey the water beneath the floors should be covered with some good non-conductor.

METHODS OF SHELVING THE BOOKS.

It is important to fully consider the different methods of shelving books, in order that the most economical arrangement may be adopted, and a true estimate of the maximum number of volumes which a library will hold be arrived at. Consideration has already been given to the difference between the alcove and the stack systems. Bookcases may be of two kinds. In one the books are only shelved upon one side, the flat back being generally placed against the wall — these are termed "wall-cases"; in the second, the cases have shelves on both sides, and are placed in the center of the rooms away from the walls — these may be termed "stack cases."

In considering what height the bookcases should be, we have, firstly, to endeavor to obtain some unit which may be divided by the shelves into spaces which will take books without wasting room, and secondly, to consider what height is the best for ease of service, and an attempt should be made to combine the two. Nearly all modern libraries have their bookcases low enough to allow the books upon the top shelves to be reached without the aid of a ladder, or, at any rate, by merely using one step 8 or 9 inches in height, the general consensus of opinion being that some height between 7 and 8 feet is the most suitable. Mr. Melvil Dewey in *Library Notes* recommends 7 feet 8 inches, and my own conclusion is that this or 7 feet 6 inches is the height that, on the whole, is best adapted for ordinary libraries.

The greater portion of the books now being published are octavo in size, varying from crowns to royals, or, say, from 7½ to 9½ inches in height. It seems probable that in the future the proportion of small books will be even greater than it is now. The days of folios, like those published from the fifteenth to the seventeenth centuries, are numbered, except as regards newspapers, and no publisher nowadays dreams of printing books larger than octavo unless they are illustrated, and space has to be obtained for plates, maps or plans.

It is necessary to have a base from 2 to 4 inches high at the bottom of each case to prevent damage to the lowest shelf of books. In some libraries the base has been made higher, and the heating pipes have been taken through it. This is wrong in principle, for books require a low temperature rather than a high one, and great damage will be done to the bindings if the pipes are placed so near to them.

We have spoken so far of one story only of bookcases, 7 feet 6 inches in height; but if these are placed on the floor of a lofty room, it will at once be seen that similar rows may be built on the top of them, if a floor of thick hammered glass or perforated iron-work is placed between. In this way are built the stack rooms of the larger modern libraries, and the most compact storage of the books, with ease of access to every part, is obtained. In the new building of the public library at Boston there are six of these book stores; in the stack rooms at the library of Congress, Washington, there are nine; but the general rule is to have four. At Boston but little reliance has been placed upon natural light, and it has been thought best to rely upon a plentiful number of electric lamps. In book stores lit only from the roof the light will no more than penetrate one floor, and so light but two stories; if the gangways are of exceptional width, as in the British Museum, three stories may be lit, but any greater number must rely upon side lights. If the latter be large and well-arranged on two opposite sides, the book store may be 40 feet in width, but the length of the cases will depend greatly upon the size of the room and its lighting.

It has been already recommended that the bottom of the side windows in ordinary rooms should be 8 feet from the floor, so as to allow a continuous run of bookcases around the room, but in book stores with stacks more than two stories in height this is impossible, and side windows must be provided for each story. The stack cases will be placed at right angles to the windows, to allow the light to penetrate between them. The distance between each stack will depend upon the distance the windows are apart, the minimum being 2 feet 6 inches; but this width should only be adopted where space is of the greatest value. Passages 3 feet wide will in practice be found quite narrow enough. The central gangway running across the room between the ends of the cases must be wide enough to take the staircase which leads from one book story to the next, and for a few narrow tables for standing books requiring replacement, etc. The staircase should be in straight flights and not circular, with a width of at least 4 feet. There should be a small lift for books placed near the door, and running from top to bottom of the room, so that books may be easily and readily transferred from one story to another. If the book stores are very large and some distance from the readers,

endless bands running over rollers or cable lines can be fitted along the gangways, to carry the books from the attendants in the book stores to the delivery desk.

To calculate how many books can be shelved in a bookcase, it is usual to allow ten volumes to each foot of shelving for ordinary octavos, and six for folios and quartos. The average over the whole shelving of an ordinary collection of books will probably be eight and one-half volumes to the foot. If it is wanted to know how many books a room will hold if fitted with cases 7 feet 6 inches high, the method of calculation is a little different. Let us suppose that the case is 16 inches deep, and has books on each side; that the width of passageway between it and the next case is the minimum of 32 inches; and that each shelf is 36 inches in length. The floor space that one division of one side of the case will take is half the width of the case (8 inches), plus half the width of passageway (16 inches), multiplied by the length of the shelf (36 inches), which gives a result of 6 square feet. If the average number of shelves in the division is 9, and there are eight and one-half books to the foot, the capacity of the division is 230 volumes, or an average of thirty-eight books to the square foot of floor area. In this calculation no account has been taken of the stairs, windows, doors or cross gangway, and only a minimum width of passageways has been allowed. If space for these are taken into consideration, a conservative estimate of the shelving capacity of a room will work out at twenty-five volumes to the square foot. A book store, therefore, 50 feet by 40 in area, with cases 7 feet 6 inches in height, will shelve 50,000 volumes; and if the room be 35 feet high, and four tiers of bookcases are erected in it, its capacity is increased fourfold, to 200,000 volumes.

THE LOUISIANA PURCHASE EXPOSITION OF 1903.

THE letting of contracts aggregating about $11,000,000 for construction work on the buildings and grounds of the World's Fair at St. Louis, Missouri, commemorating the Louisiana Purchase, will begin about December 1. It is planned to apply about $7,000,000 of this amount on the buildings and about $4,000,000 on the grounds. The letting will begin with the contracts for four big exhibit buildings which, with their surroundings, will, it is estimated, cost about $4,000,000.

The site has been selected to embrace the unfinished half of Forest Park. The part of the park to be used contains 668 acres, and about 300 acres of surrounding property will be added to bring the entire area of the site up to about 1,000 acres.

The ground plans of the exposition have been drawn up by a Commission of Architects in which every section of the country was represented. Isaac S. Taylor, of St. Louis, was its chairman. The other St. Louis members are Eames & Young; Barnett, Haynes & Barnett; Widmann, Walsh & Boisselier, and Theodore C. Link. New York was represented by Carrère & Hastings, and by Cass Gilbert, of New York and St. Paul; Boston by C. Howard Walker; Kansas City by Van Brunt & Howe; Omaha by Thomas R. Kimball. The Commission of Architects had the advantage of the advice of a board composed of a sculptor, Mr. F. W. Ruckstuhl, of New York; a landscape engineer, Mr. Julius Pitzmann, of St. Louis, and a landscape architect, Mr. George E. Kessler, of Kansas City.

The details of the general arrangement have been worked out by Mr. E. L. Masqueray, of New York, as Chief Designer. Mr. Masqueray, who received his early training in architecture at the Ecole des Beaux-Arts, Paris, has for the past five years conducted an atelier in New York.

The site has been surveyed and the lines of buildings and avenues staked off.

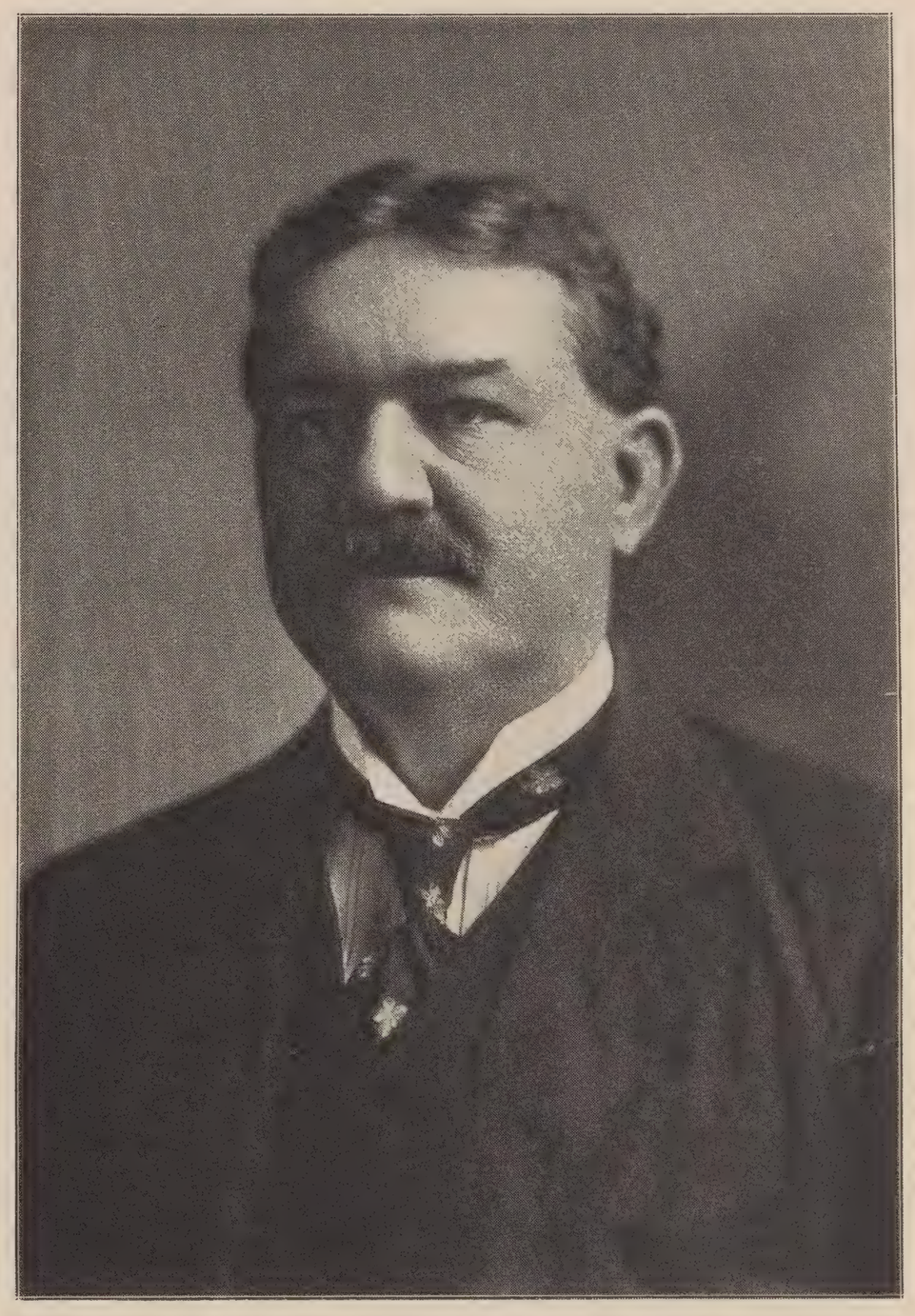
The designs for the separate buildings, assigned to the individual members of the Commission of Architects, will be submitted to scale drawings by the middle of October, and the working drawings of the main buildings to be let first will be ready by November 1. The lettings will be advertised for about three weeks in the leading technical journals throughout the world. There will be no geographical restriction on bidders. The main stipulation will be that the buildings be ready for occupancy at a date sufficiently far ahead of April 30, 1903, the date fixed for the opening of the exposition, to allow exhibitors time to prepare their displays for the opening. To secure the completion of the buildings by this time, a sufficient bond will be required of the successful bidders. Materials will be employed in the construction work and conditions will be so adjusted that contractors may fulfill their contracts.

All this work will be in direct charge of Mr. Isaac S. Taylor, of St. Louis, who is at the same time chairman of the Commission of Architects, and Director of Construction and Maintenance for the Louisiana Purchase Exposition. Over him will be only the unsalaried officials and directors of the Louisiana Purchase Exposition Company. It has been decided to do away entirely with the position of Director-General, who, in most former important expositions, was at the head of the salaried forces and controlled practically all the departments, supervising the Department of Works, of Exhibits, of Publicity and Promotion, of Accounts and of Concessions.

Mr. Taylor, Director of Construction and Maintenance, reports to the Committee on Grounds and Buildings, a committee of seven members, and through them to the Executive Committee and the Board of Directors.

The St. Louis World's Fair is the first at which the same man was Chairman of the Commission of Architects as well as Director of Construction and Maintenance. This is the first great exposition in which the same man who led the planning of the exposition had the chieftancy in carrying out the construction. The arrangement adopted in St. Louis is pronounced the ideal one by every person who has had a part in the construction of former expositions. Mr. Taylor had a large voice in the selection of the Commission of Architects and presided at their meetings from the beginning. On a trip to the East he engaged the Chief Designer, Mr. E. L. Masqueray, in New York.

The plan which will be pursued in the construction of a building at the St. Louis Exposition will be to let the entire building



ISAAC S. TAYLOR, ARCHITECT.

Director-General of Construction and Maintenance, World's Fair, 1903.

under a single contract, the contractor to have control of all the sub-contractors. "This plan is by far the most satisfactory," says Mr. Isaac S. Taylor. "Where the exposition company lets sub-contracts itself each sub-contractor must be watched, and it is difficult to fix responsibility for faulty work. For this reason in former expositions the company had to pay extra for reconstruction of faulty work, and the cost of the extra swelled the total cost of construction immensely."

Mr. Isaac S. Taylor has been in St. Louis all his working life. He was born in 1851 in Nashville, Tennessee. He was graduated from the St. Louis University with class honors in 1868. After studying for six years under the preceptorship of Architect George I. Barnett, of St. Louis, he was taken into partnership, and the business was then conducted under the firm name of Barnett & Taylor. The Southern Hotel, the first fireproof hotel in St. Louis, and still one of the finest hotels in the city, was erected by this firm.

In 1879 Mr. Taylor severed his connection with George I. Barnett and since then has been in business for himself in St. Louis. He has erected some of the biggest and best buildings in the city and has done much work in Illinois and Texas.

THE competition for the $1,000,000 city hall at Newark, New Jersey, in which sixty architects competed, has been rejected by the commissioners. The plans submitted by five architects were awarded $1,000 each and the designers requested to prepare plans in another close competition. These five firms are: O'Rourke & Dubois, of New York; Jeremiah O'Rourke & Sons, of Newark; John H. and Wilson C. Ely, of Newark; Ackerman & Ross, of New York, and William B. Tubby & Brother, of New York.

CORRESPONDENCE.

Boston, September 17, 1901.

Editors Inland Architect:

Yesterday I received this cablegram:

"Peabody-Boston. Our profoundest sympathy with American Institute. National mourning. President Royal Institute British Architects."

I at once replied to Mr. Emerson that this sympathy and friendliness on the part of the Royal Institute is greatly appreciated. I think you will be glad to print the Emerson message in your journal, so that such a fraternal and cordial word may reach as quickly as possible all for whom it was intended.

Yours very truly,

Robert S. Peabody,

President of the American Institute of Architects.

PAINTS IN ARCHITECTURE.

WHY PAINTS CRACK.

PAINTS crack for the same reason that walls crack — carelessly laid or insufficient foundations, green or improperly made mortar. The best paint produced will crack if it be carelessly applied, and many contractors who are very conscientious over their walls are indifferent regarding paint.

Pure zinc white is the most beautiful and durable paint base with which science has yet supplied the craft, but improper use will make it crack like a chapped hand.

The prime requisite is that each coat shall be thoroughly dry before the next one is applied, and to secure the requisite speed of drying some drier should be contained in the oil (not added from the "lightning" drier can). I have some exterior work done nearly five years ago with a pure zinc tint that is today practically as fresh and bright as when it was first applied, and shows no sign of cracking. But plenty of time was allowed for drying between the coats, and the necessary driers were added to the oil in a varnish kettle.

Painters are accustomed to one pigment, and they are prone to treat all others in the same way, wherefore the injudicious among them sometimes come to grief when they get out of the familiar rut; but zinc white is absolutely essential to satisfactory architectural results, and it is worth some coaching of the painters to have it properly used. Charles Jourdain.

THE CHICAGO SCHOOL OF ARCHITECTURE.

THE Chicago School of Architecture, which opened its new year Thursday, September 19, is doing a valuable work in an unassuming manner. Connected, as it is, with Armour Institute of Technology and the Art Institute, it derives substantial character from these great institutions, but it is in some degree lost to view among their other greater departments. Its relation to the three or four great architectural schools of the country is at present similar to that of some of the lesser colleges to the great universities. It is perfectly well recognized that a young man may get as good an education for all practical purposes at a small college as at a great one, and that more depends upon the student himself and his immediate instructors than upon his environment. The course in the Chicago school embraces the same studies as the great Eastern schools. Mathematics, language and science are taught at Armour Institute, drawing design and distinctly architectural branches at the Art Institute. Students usually spend half the day at one institution and half at the other. The laboratories, libraries, collections, lectures, staff of instruction and courses of study of both institutions are open to the students of architecture so far as they can avail themselves of them. The members of the faculty, like those of most colleges, while not men of world-wide distinction, are accomplished and sound instructors in the subjects which they teach. Professors Alderson, Kerr, Macomber and the other instructors of Armour Institute we suppose will not be called in question by any competent judges. The teachers of architecture, Mr. Millett, Mr. Fellows, Mr. Shattuck, Mr. Otis and Mr. MacHarg, are all in the active practice of their special departments of the profession. Mr. Louis J. Millett took a very extended course of architecture in the Beaux-Arts in Paris, and is by profession a decorative designer. He is at the head of the important school of decorative design in the Art Institute, and it is safe to say there is no more successful teacher of design in America. The school of architecture has heretofore adhered to the same order of study as other schools, but if it should be thought best to try the interesting and promising experiment lately proposed, of teaching abstract design first and the orders last, the Art Institute is in an excellent position to make the trial. Indeed this has been the actual practice in the department of decorative design for many years. Mr. W. K. Fellows was several years ago the winner of one of the foreign architectural scholarships in Columbia, and is now in the full practice of architecture in Chicago. The subject of architectural design falls in great part to him. Mr. W. F. Shattuck, the teacher of graphic statics and descriptive geometry, comes from the University of Illinois, which pays especial attention to engineering. Mr. W. A. Otis, also of the Beaux-Arts, finds time in a busy practice to deliver extended courses of lectures upon the history of architecture. Mr. MacHarg is well known as a sanitary engineer. During the present busy time in architecture many of the students have been drawn out of the school prematurely by tempting offers in architects' offices. One building, designed in the classrooms last year as a school exercise, is actually being constructed in a neighboring State, and four-fifths of the former students of whom anything is known, are engaged in the actual practice of architecture. From all this it appears that education in the Chicago School of Architecture is eminently practical.

ASSOCIATION NOTES.

BUFFALO CHAPTER A. I. A.

The Buffalo Chapter of the American Institute of Architects has elected the following officers for the year: President, E. A. Kent; First Vice-President, H. Osgood Holland; Second Vice-President, Ulysses G. Orr; Secretary, William Hart Boughton; Treasurer, F. H. Loverin.

PITTSBURG CHAPTER A. I. A.

At the annual meeting of the Pittsburg Chapter of the American Institute of Architects, held August 26, the following officers and directors for the ensuing year were elected: President, Edward Stotz; Vice-President, Joseph L. Neal; Secretary, J. E. Allison: Treasurer, J. Edward Ketren; the Board of Directors, the officers and A. R. Stevens, C. M. Bartberger and S. D. Evans.

ILLINOIS CHAPTER A. I. A.

The annual meeting of the Illinois Chapter of the American Institute of Architects was held on September 16 in the society's rooms at the Art Institute. The report of the treasurer, Normand S. Patton, was read and showed the Chapter to be in an exceedingly prosperous condition. Secretary George Beaumont reviewed the work of the Chapter during the year.

President Mundie, at the request of the members, selected as delegates to the Annual Convention of the Institute W. L. B. Jenney, Samuel A. Treat, W. C. Zimmerman and George Beaumont.

The following officers were elected for the ensuing year: President, William Le Baron Jenney; First Vice-President, W. C. Zimmerman; Second Vice-President, Henry B. Wheelock; Treasurer, Normand S. Patton; Secretary, George Beaumont.

BROOKLYN CHAPTER A. I. A.

The annual meeting of the Brooklyn Chapter of the American Institute of Architects was held on September 6, and the following officers, directors and committees were elected:

President, R. L. Daus; Vice-President, A. G. Thomson; Treasurer, H. Hobart Weekes; Secretary, Axel S. Hedman; Surveyor, Frank H. Quimby; Board of Directors, Messrs. Louis De Coppet Berg, I. E. Ditmars, J. M. Hewlett, W. Hull, Charles T. Mott, A. V. Porter and W. A. Strout, J. Pettit (juniors); Exhibition Committee, Messrs. Hedman, Hull and Mott; Current Work Committee, Messrs. Quimby, Thomson and Porter; Membership Committee, Messrs. Hull, Dittmars and Mott; Professional Practice Committee, Messrs. Berg, Ditmars and Hewlett; Social Intercourse Committee, Messrs. Dahlander, Werner and Thomson; Surveyor's Committee, Messrs. Quimby, Hedman and Porter; Delegates to Convention, Messrs. Berg, Daus and Thomson.

OUR ILLUSTRATIONS.

Monument. Bruno Schmidt, architect.

Shakespearian Clubhouse, Pasadena, California.

Residence of E. F. Claypool, Pasadena, California.

Residence of L. V. Harkness, Pasadena, California.

Residence of Graham Babcock, San Diego, California.

Interior View, Church of Christ, Scientist, Toronto, Canada.

Proposed French Hospital, New York. Welch, Smith & Provot, architects.

Residence of C. W. Seamans, Brooklyn, New York. Montrose W. Morris, architect, New York city.

United States Courthouse and Postoffice, Cumberland, Maryland. James Knox Taylor, Supervising Architect.

Residence of C. C. Febiger, Philadelphia. Horace Wells Sellers, architect. An exterior and an interior view are shown.

Accepted design for a battle monument at Leipsic. Bruno Schmidt, Charlottenberg, architect. Exterior and Interior, illustrating article giving a history of the monument, by Architect Frederic Baumann.

Photogravure Plate: Residence of A. B. Tillinghast, Toledo, Ohio. Braun, Burton & Davis, architects; George W. Netcher, associate architect.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

Residence of E. D. Libby, Toledo, Ohio. D. L. Stone, architect.

Residence of C. O. Howard, Buffalo, New York. Green & Wicks, architects.

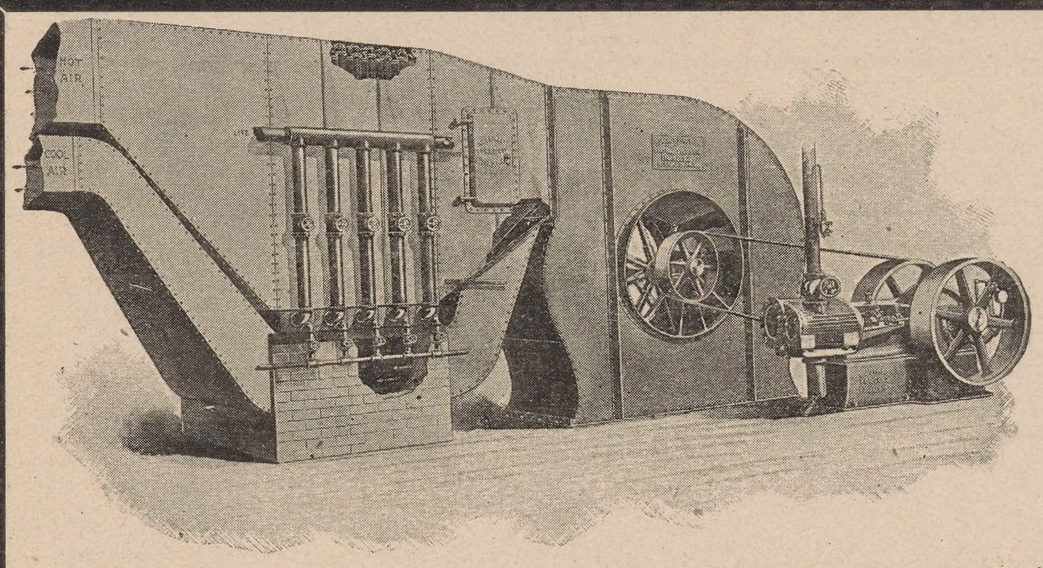
Residence of Mrs. E. S. Anthony, Detroit, Michigan. A. C. Varney, architect.

Residence of Mrs. Biddle, Detroit, Michigan. Rogers & Macfarlane, architects.

View in Grillroom, Iroquois Hotel, Buffalo, New York. Esenwein & Johnson, architects.

Residence of G. M. Burnstead, Orange, New Jersey. W. G. Lawrence, architect, New York city.

Residence of Carlton Sprague, Buffalo, New York. Babb, Cook & Willard, architects, New York city.

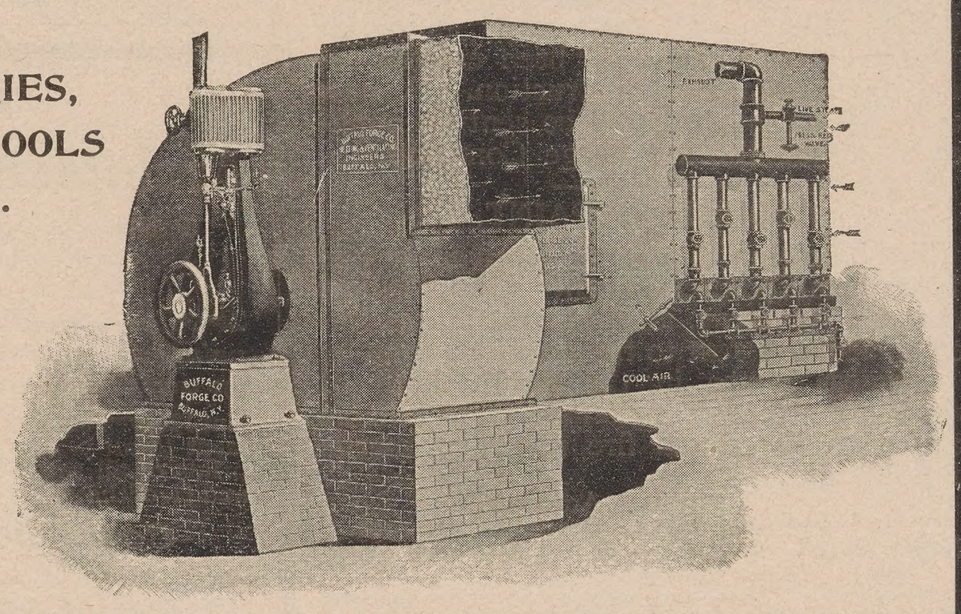


Temperature and Humidity under Complete Control

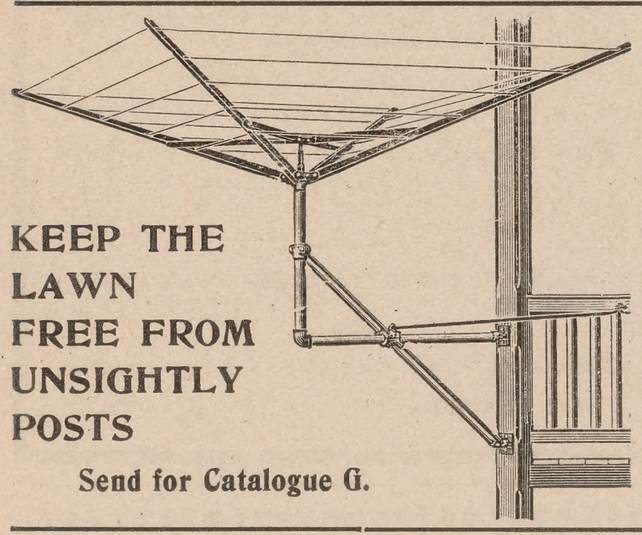
BUFFALO FAN SYSTEM

of Heating and Ventilating

FOR
MILLS, FACTORIES,
CHURCHES, SCHOOLS
THEATERS, ETC.



BUFFALO
FORGE
COMPANY,
BUFFALO, N. Y.
U. S. A.



KEEP THE
LAWN
FREE FROM
UNSIGHTLY
POSTS

Send for Catalogue G.

Hill's Famous Clothes Dryers

For flats and yards of private dwellings.
The most popular dryer in the world.
Indorsed and specified by architects everywhere. More than 200,000 in use.
Sold by the Hardware trade.
Order of your jobber or direct.

HILL DRYER CO.,
WORCESTER, MASS.

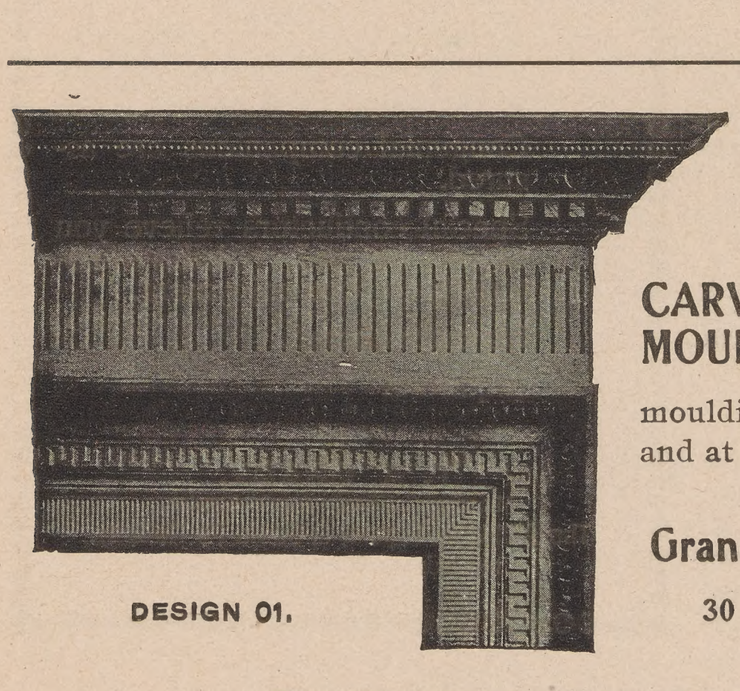
DIXON'S SILICA GRAPHITE PAINT

FOR TIN OR SHINGLE ROOFS AND IRON WORK. IT IS ABSOLUTELY WITHOUT AN EQUAL.

Tin roofs well painted have not required repainting for 10 to 15 years.

If you need any paint it will pay you to send for circular.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.



DESIGN 01.

The Real Thing!

CARVED WOOD MOULDINGS : : : : Made by machine. Not pressed or burned; not metal, but wood. These mouldings are more perfect than hand work, and at a very small per cent of cost.

Grand Rapids Carved Moulding Co.

30 to 35 Myrtle St., GRAND RAPIDS, MICH.

"Big Four" Route.

CHICAGO

TO

INDIANAPOLIS,
CINCINNATI,
LOUISVILLE.

SOUTH and SOUTHEAST

THE SCENIC LINE TO

Hot Springs, Va., and
Washington, D. C.

Via the

Chesapeake & Ohio R'y.

J. C. TUCKER, G. N. A.
234 Clark Street, CHICAGO.

The improved Shingle Stain and preservative. Imparts an artistic finish to shingles and prolongs their life by penetrating the pores of the wood and retarding decay.

SHINGLETINT is made in all desirable shades, is easily applied, the colors are permanent, and money is saved by its use.

Full information and finished samples of wood mailed free for the asking.

BERRY BROTHERS, Limited
Varnish Manufacturers, DETROIT, MICH.

NEW YORK, 252 Pearl St. CHICAGO, 15 and 17 Lake St.
BOSTON, 520 Atlantic Ave. CINCINNATI, 304 Main St.
PHILADELPHIA, 26 and 28 N. Fourth St.
ST. LOUIS, 112 S. Fourth St. BALTIMORE, 22 E. Lombard St.
SAN FRANCISCO, 12 Front St.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXXVIII. ADVERTISERS' TRADE SUPPLEMENT. No. 3

THE BUFFALO FORGE COMPANY.

The works of the Buffalo Forge Company, less than a mile from the center of Buffalo, occupy the entire block bounded by Broadway, Mortimer, Tousey and Champlain streets. The Broadway and the Sycamore electric railway lines (the former the more direct) afford ready access to the works from depots and hotels.

The first floor of the five-story southeast building is occupied by the offices of the company; on the second are the drafting rooms and pattern shop, while the three upper floors are devoted to the construction of Buffalo disk wheels, "B" Volume blowers and exhausters. Adjacent to this building is located the new power house. The Buffalo Mechanical Induced Draft System is arranged in conjunction with the boiler plant to supply the requisite draft, which is automatically regulated for a constant steam pressure sufficiently high for the most rigid tests. Buffalo direct-connected tandem compound engines furnish current for the shop motors. The center front building is the sheet iron department. In the northeast building is the fan system heater department, where immense quantities of pipe are used annually. Here also is situated the forge shop, equipped with the Buffalo down-draft forge system, the efficiency of which is so marked that the smoke does not pervade the adjacent open shops.

On the top floor of the new six-story building, Buffalo portable forges, hand blowers and other blacksmith tools are built, and on the fifth floor Buffalo down-draft and heating forges. The fourth floor is devoted to the construction of Buffalo steel pressure blowers. The painting, crating and temporary storage of light machines is done on the third floor, where also are located certain shop offices. The second floor provides space for the tool room and finishing of engine parts. On the first floor, and extending into the adjacent central building, are the engine machine shops, furnished with special tools and thoroughly equipped for engine building. The basement makes a convenient stock room.

In the adjacent central building is located a thoroughly equipped engine-testing room. In this building, also, the large steel plate heating and ventilating fans are constructed, with facilities for thorough testing. A modern foundry occupies the northwest building, and adjacent thereto are the pattern vaults. A one and a half story gallery type building on an adjacent street furnishes a warehouse for storage purposes.

The Buffalo Forge Company Engine is built in several types. Each is suited to a specific kind of work, and very naturally possesses the individual characteristics which adapt it thereto. Limitations of floor spaces and heights, together with different engineering practice in central power plants, aboard ship, etc., all call for appropriate engine forms. These sundry conditions are fully met in the style advised for a stated service, and the various designs evince a careful consideration of all the requirements.

In many power plants, notably those of the magnificent office buildings of today, space is of greater value than the most costly machinery occupying it. It is here that the direct-connected unit of engine and generator received its first impetus by reason of the minimum room required. The development of this apparatus has been so marked, both as regards generator and engine, that today the direct-connected set attracts the user from the additional standpoints of increased life and greater economy.

High as the standard of the art of steam engine building in this country at present is, experience constantly develops points of improvement which make a more perfect machine. These are embodied as they arise, and lie mainly in the direction of simplicity. Absence of complication at once appeals to a discriminating buyer. A point worthy of more than passing note is the fact that the original characteristics of each engine type still exist. Of the designs in general this is sufficient emphasis of their sterling merit.

The Buffalo Forge Company's works, the engine departments especially, are equipped with the latest improved tools of the very best makes obtainable. The special tools embrace many original features admirably adapted to engine building. New appliances and methods for turning out the most superior work are added to the equipment at once upon their worth being apparent. No pains or expense are spared to produce results in advance of the times. Within the past year new buildings of large proportions have been erected especially for engine construction. A new catalogue on engines will be sent on application to the Buffalo Forge Company.

ASBESTINE PAINT.

The following is a letter received by one of the manufacturers' agents from Phillips Andover Academy, at Andover, Massachusetts; also one sent to the manufacturers by a business house in the South, both of which are strong testimonials from reliable parties on the actual fire retarding merits of Asbestine:

PHILLIPS ACADEMY,
ANDOVER, MASS., December 22, 1900.

Messrs. Charles Richardson & Co., 85 Oliver street, Boston, Massachusetts:

GENTLEMEN,— Replying to your favor of the 21st instant, I would say that we are fully convinced that our Asbestine Cold Water Paint retarded to a wonderful extent the spread of the fire at our place Tuesday night, December 10. We have recently added a new section to our barn and this had received but one coat inside of Asbestine White.

The fire started in the old barn, where we had stored about twenty tons of hay, ninety-five tons of silo, and this was entirely destroyed, as it was some twenty minutes before we were enabled to get a stream playing on the flames, as we had to send to Lawrence for assistance, and we noticed with quite a good deal of surprise (although when we purchased the paint you assured us of its fireproofing qualities), that when the flames reached the new portion they died out without gaining any hold whatever on the woodwork.

In looking the place over a few days ago we noticed a remarkable thing — in one place the flames shot across a space of probably twenty feet, which was covered with Asbestine, without injuring the surface, and followed the draft through a large ventilator, which was also coated with Asbestine, and the only damage done was that the glass in the top was broken from the great heat.

Everyone in this neighborhood is greatly interested in Asbestine since the fire, and the general opinion is that Asbestine saved our new barn, and we regret exceedingly that we did not have the whole structure painted with it, as we feel confident that in that case we would not have had this disaster.

Hoping you will be as well pleased with this wonderful test of the fire-resisting qualities of your Cold Water Paint as we are convinced of its many merits, I remain, Very truly yours,

(Signed) A. M. GRANT, P. A.

UPSON'S OIL & SOAP COMPANY,
PARKERSBURG, W. VA., October 14, 1899.

The Alden Speare's Sons Company, Boston, Massachusetts:

DEAR SIRS,—Your favor of the 12th instant received. I have felt that in the limited use of the Asbestine Cold Water Paint I have neither done myself nor yourselves justice. In my fire of September 14, which destroyed our buildings, it is plain to be seen that if the inside and outside walls had been coated with Asbestine, I would, in place of having a worthless pile of bricks and mortar, have walls that I could rebuild upon in sound condition. This is in ample evidence on the portion of the walls that we had covered with your paint. I doubt if I could be made to believe this if it were less forcibly impressed upon me by the costly facts. The representatives of seven large insurance companies have witnessed these results in wonderment.

Yours very truly, N. L. UPSON.

TRADE NOTES.

THE advantages of Interlocking Rubber Tile suggest themselves at once. Combining the noiseless, non-slippery surface of rubber with the durability and sanitary value of earthenware tile, it forms a desirable floor covering for both private dwellings and public buildings. It can be cleaned easily, and harbors no germs. Made by the New York Belting & Packing Company, Limited, 25 Park place, New York.

THE following commendatory letter is another tribute to the high reputation enjoyed by the L. H. Prentice Company:

A. B. Mead, Esq., care McKim, Mead & White, 160 Fifth avenue, New York City:

DEAR MR. MEAD,—This will introduce to you Mr. George Mehring, vice-president of the L. H. Prentice Company, of Chicago.

I wish very much you would submit specifications for heating to him and see whether you and he can "get together." I would rather have the Prentice Company do the work in our house in Washington, other things being equal, than any local man. They are quite capable of doing it and have given us such satisfaction in our present house that I feel sure if they undertake to do the work for us in Washington they will give us a thoroughly good job. If they do not we shall only have ourselves to blame and we shall then call upon them to remedy any defects in heating.

Yours very truly, R. W. PATTERSON.

The

Architectural Reprint

Published at 1422 New York Avenue,
WASHINGTON, D. C.

A periodical publication which reprints the most rare and famous books on architecture and the allied arts

Until November first we offer a Special Supplement to all yearly subscribers containing reprints of all the Compositions in Volumes I. and II. of the

Cours D'Architecture

By J. F. BLONDEL, Published at Paris in 1771; one of the rarest and most famous books on Architecture ever published. Fifteen plates and title page. The first volume of the reprint will contain, in addition to a collection of miscellaneous plates from Blondel, Ludwig Hoffman, Palladio, Epoque Louis XVI., complete reprints of the following books:—

GELIS-DIDOT ET LAMBERT

Hotels und Maisons de Paris

Renaissance Architecture and Ornament in Spain

PRENTICE

Portfolios, including title pages, **Free.** 100 plates 11½ by 13½ in. in each volume of the Reprint.

Subscription Price, $2.50 per annum

Three Months' Trial Subscription, 50 Cents

A Profitable Way to see The West

is to join one of the personally conducted California excursions of the Santa Fe Route.

Congenial companions are assured.

Special conductors relieve you of all care and contribute materially to your enjoyment.

No extra charge.

Inquire of

T. A. GRADY,
Manager California Tourist Service,
The Atchison, Topeka & Santa Fe Railway,
109 Adams Street, Chicago.

SPECIFICATION REMINDERS

BRICK

Enameled.

Fire.

Ornamental.

Paving.

Porous.

Pressed.

Sewer.

CEMENTS

Domestic.

Imported.

Portland.
Garden City Sand Co., 188 Madison St., Chicago.

Utica.

CLOTHES DRYERS

Chicago Clothes Dryer Works, 65 S. Canal St., Chicago.

CONTRACTORS

General.
Clarence I. Wolfinger, 164 LaSalle St., Chicago.

DECORATIONS

Interior.

Iron.

Lincrusta Walton.

Marble.

Plaster.

Stone.

Wood.

ELEVATORS

Electric.
The Winslow Elevator & Machine Co., 96-100 N. Clinton St., Chicago.

Freight.

Hydraulic.
The Winslow Elevator & Machine Co., 96-100 N. Clinton St., Chicago.

Passenger.

Steam.

Water Balance.

FIRE BRICK

Garden City Sand Co., 188 Madison St., Chicago.

FIREPROOFING

Monier Construction.

Tile and Concrete.

Wire, Metal and Lath.

FLOORS

Hardwood.
Acme Parquet Floor Co., 4703 Cottage Grove Ave., Chicago.
E. B. Moore & Co., 37 Randolph St., Chicago.
E. R. Newcomb, 14 Monroe St., Chicago.

Marble.

Mosaic.

Parquetry.
Acme Parquet Floor Co., 4703 Cottage Grove Ave., Chicago.
E. R. Newcomb, 14 Monroe St., Chicago.

Polished Maple.

Rubber Tile.

Tile.

White and Yellow Pine.

GLASS

Ornamental.
Schuler & Mueller, S.W. cor. Madison and Canal Sts., Chicago.

Plate.

Prismatic.

Sheet.

Stained.

HEATING

Electric.

Furnace.
Robinson Furnace Co., 107 Lake St.

Steam and Water.
William A. Pope, 79 Lake St., Chicago.

Steam and Hot-Water Boilers.
Kellogg-Mackay-Cameron Co., 110 Lake St., Chicago.

Valves, Boilers and Radiators.
Western Valve Co., 43 W. Randolph St., Chicago.

INTERIOR FINISH

Clarence I. Wolfinger, 164 LaSalle St., Chicago.

IRONWORK

Doors.

Jail-Work.

Ornamental.

Shutters.

Stairs.

Structural.

LIGHTING

Electric.
Wagner-Bullock Electric Mfg. Cos., 1624 Marquette Bldg., Chicago.

Fixtures.

Gas.

Gas Machines.

MOLDINGS

Brick.

Composition.

Iron.

Marble.

Plaster.

Stone.

Wood.

MOTORS

Electric.
Wagner-Bullock Electric Mfg. Cos., 1624 Marquette Bldg., Chicago.

PAINT

ROOFING

Felt.

Iron.

Shingle.

Slate.

Tar and Sand.

Tile.

Tin.

SAND

White.
Garden City Sand Co., 188 Madison St., Chicago.

SASH LOCKS

Harlev Burglar Proof Ventg. Sash Lock Co., 92 La Salle St., Chicago.

STONE

Granite.

Indiana Oolitic Limestone.
Perry-Matthews-Buskirk Stone Co., Chamber of Commerce Building, Chicago.

Sandstone.

TERRA COTTA

Enameled.

Ornamental.

Porous.

TILE

Opalite.
W. T. Carter & Co., 305 Dearborn St., Chicago.

VENTILATION

Fan System.
Garden City Fan Co., Chicago.

STAIN WITH WATERALL'S STAINS TO PRODUCE MOST BEAUTIFUL EFFECTS.

FILL WITH WATERALL'S STERLING FILLER TO PRODUCE SMOOTH SURFACES AND BRILLIANCY OF TONE.

VARNISH WITH WATERALL'S HIGH-GRADE VARNISHES FOR FINEST FINISH THAT IS DURABLE.

ATTRACTIVE COLOR CARD UPON APPLICATION.

WM. WATERALL & CO. PAINT AND VARNISH MAKERS.
PHILADELPHIA.

ESTABLISHED 1872 INCORPORATED 1890

ORR & LOCKETT HARDWARE CO.

CHICAGO.

71 & 73 Randolph Street.

MANUFACTURERS, WHOLESALE AND RETAIL DEALERS

Builders' Hardware

ART METAL-WORK OF ALL KINDS.

Cooling Rooms.

Mechanics' Tools.

Table and Pocket Cutlery.

Our selection comprises THE BEST from all the leading factories, as well as our own, and our heavy purchases enable us to offer you these goods at prices which can not fail to please.

We have many specialties which we manufacture and control which can not be found anywhere else.

Orr & Lockett Hardware Co.

71 & 73 RANDOLPH STREET.

Telephone, Central 551.

The Products of The Yale & Towne Manufacturing Company, comprising

The Yale Locks,

Builders' Hardware,

Art Metal Work,

can be obtained from the Hardware Trade.

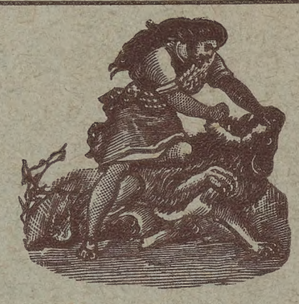
Complete collections can be seen in the Exhibit Rooms maintained by the Company in its General Offices, 9-11-13 Murray Street, New York, and at its Branch Offices in Chicago, Philadelphia and Boston.

Special brochures, of technical interest, furnished to Architects on request.

The Yale & Towne Mfg. Co.

Chicago Office:

No. 131 Wabash Avenue.

IF YOU  SPECIFY

SAMSON SPOT CORD

You can tell at a glance that no other Sash Cord is substituted. It is warranted to be of the best cotton stock, smooth finish and perfect braid.

SAMSON CORDAGE WORKS

BOSTON, MASS.

Utter Ruin

might be caused to a building by the rusting of its iron skeleton. Preserve it perfectly from destruction by specifying

Durable Metal Coating

TRADE MARK.

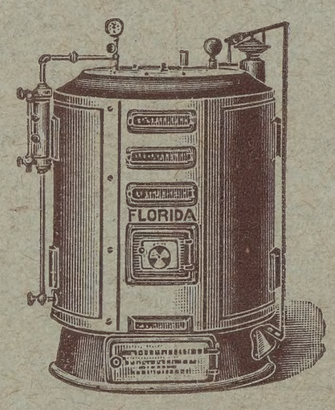
For Booklets, write

EDWARD SMITH & CO.

VARNISH MAKERS and COLOR GRINDERS,

45 BROADWAY, - - - NEW YORK.

PIERCE BOILERS



PIERCE BOILERS and RADIATORS are installed in more than a hundred thousand homes, churches, schools, apartments and similar buildings.

They are indorsed by the foremost Architects and Heating Engineers.

Our New Trade Catalogue will be sent on application.

Pierce, Butler & Pierce Mfg. Co.

SYRACUSE, N. Y.

NEW YORK 46-48 E. 20th St. | BOSTON 50 Oliver Street | PHILADELPHIA 20 S. 7th St.

Kellogg-Mackay-Cameron Co.

110 Lake Street, CHICAGO.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.